

# WatchTime

THE MAGAZINE OF FINE WATCHES

## TESTS AND REVIEWS

JAEGER-LECOULTRE,  
A. LANGE & SÖHNE,  
TUTIMA, CHRONOSWISS

**URWERK**

SHOCK JOCK  
Felix Baumgartner

Making  
**PARMIGIANI**  
From Caliber  
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Test:

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Portuguese  
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February 2011

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# Les Nouvelles Montres sont Arrivées!

For decades, the arrival of the new crop of watches was a watch-world rite of spring (in the Northern Hemisphere, anyway). In late March or early April, like swallows to Capistrano, watch industry professionals and aficionados from around the globe descended on Basel, Switzerland, for the Basel Fair, as it was then known, to see what the Swiss call “the novelties.” Even when the Richemont Group (then called the Vendôme Group) launched the rival SIHH (Salon International de la Haute Horlogerie) show in Geneva in 1991, it was a spring thing; the two shows overlapped.

Now there is a new rhythm: The first new watches come with the new year. That’s because SIHH moved its dates to the third week of January two years ago. The arrival of a major batch of new models does not get the hype that the French muster for their Beaujolais Nouveau wine, with signs in stores screaming, “Le Beaujolais Nouveau est arrivé!”, but it is a big deal in Geneva and around the watch world. SIHH, with 19 luxury-watch exhibitors, including all the Richemont Group brands, is the big event.

Other satellite shows occur around town. The Franck Muller Group holds its own show (WPHH, World Presentation of Haute Horlogerie) at the group’s headquarters in Genthod, a Geneva suburb. Last year a new exhibition, GTE (Geneva Time Exhibition), opened; it will have 60 exhibitors this year, mostly smaller, independent brands. Other independents exhibit in rooms in the luxury hotels along Geneva’s lakefront.

*WatchTime*’s gang of four — managing editor Mark Bernardo, senior editor Norma Buchanan, online editor Mike Disher and myself — will be on the scene covering the *nouvelles montres*. We’ll have a full report in the March-April issue. For those who can’t

wait until March and want to see the goodies right away, go to [www.watchtime.com](http://www.watchtime.com) during the week of January 17. Disher will be posting reports from the show all week.

As always, a second, much larger crop of new watches arrives at the Baselworld exhibition that runs from March 24-31.

*WatchTime* is proud to be one of the few watch magazines in the world (and the only one in English) that puts its advertisers to the test. This issue is another test fest. It contains four watch tests and one in-depth review. Readers tell us they love the reviews, which are chock-full of information. The reviewer’s take on the watches is invariably interesting. Our cover story, “Brine Time,” (page 56) is a test of the new Portuguese Yacht Club Chronograph from IWC Schaffhausen. The watch performs well in the test. But you’d better hope that yacht stays afloat, because the watch is only water-resistant to 60 meters. In “Wake-Up Caller,” a test of Jaeger-LeCoultre’s Master Memovox alarm watch (page 72), the reviewer considers the deployant buckle ill-suited to a watch that has such a fine-sounding alarm; he’s also not crazy about the watch’s rate. Reviewers can be picky. In “Annual Check-Up” (page 94), the reviewer takes the A. Lange & Söhne Saxonia Annual Calendar to task because it takes 30 minutes for the date to advance. In “Tool of Hard Knocks,” a mini-test of the Tutima Grand Classic Black watch, the reviewer raves about Tutima’s special treatment that makes the case scratch-resistant. But the bezel is a bit too loose. “Sirius Scrutiny,” a review of the Chronoswiss Sirius watch, gives kudos to Chronoswiss for the watch’s handsome design and comfort on the wrist, but the precision suffers when the watch is not fully wound. The devil, they say, is in the details. Our aim is to give you a devil of a time with our reviews.

Joe Thompson  
Editor-in-Chief

The SIHH exhibition opens on January 17.



Online editor Mike Disher



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ment designer for the avant-garde watch brand Urwerk, raising eyebrows is its own reward.

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*ON THE COVER: The new IWC Yacht Club Chronograph in stainless steel. Photo by Nik Schölzel*



# Finally, a navigation system without that annoying voice.



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# WatchTime

THE MAGAZINE OF FINE WATCHES

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WatchTime (ISSN 1531-5290) is published bimonthly for \$39.97 per year by Ebner Publishing International, Inc., 274 Madison Avenue, Suite 705, New York, NY 10016. Copyright Ebner Publishing International, Inc. All Rights Reserved. January/February 2011 issue, Volume 13, Number 1. Periodicals postage paid at New York, NY and additional mailing offices. POSTMASTER: Send address changes to WatchTime, WatchTime Subscription Service, P.O. Box 3000, Denville, NJ 07834-3000, Tel. 1-888-289-0038. Publications mail agreement no. 40676078: Return undeliverable Canadian addresses to P.O. Box 503, RPO West Beaver Creek, Richmond Hill, Ontario L4B 4R6.

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## “KISS’S ERIC SINGER SHOWED A DEPTH OF HOROLOGICAL KNOWLEDGE ONE WOULD ONLY FIND IN A TRUE ENTHUSIAST!”

### SMART CAT

Just wanted to say that the celebrity interview with [Kiss drummer] Eric Singer (“TimeCat,” December 2010) was a refreshing treat! It seems that most celebrity interviews reveal a person who’s less a wristwatch enthusiast and more a well-known personality with deep pockets that happens to own a lot of watches. While such interviews can definitely be enjoyable reads, as many well-known people bring interesting perspectives based on their unique life experiences, Mr. Singer showed a depth of horological knowledge one would only find in a true enthusiast! Please thank Elmar Schalk and Nina Bauer for this fine contribution to *WatchTime*!

Walter Manning  
Franklin, MI

In the article “TimeCat,” which I truly enjoyed even though I am not a big Kiss fan, Eric Singer is shown on page 165 wearing what looks to be a Breguet Heritage Tourbillon. Yet there is no mention of him owning a tourbillon in the article. I was also caught off guard by how educated he is about watches and his overall knowledge of different *manufactures*. Well done!

Josh Pugh  
Mentor, OH

### PAD PRAISE

I have downloaded the June iPad edition of the magazine and am happily reading away looking forward to the next one. It would appear that you are one of the few publications that have managed to capture the integration of the new technology, and not just put a scanned copy of your magazine into an app. Thank you very much for the extra bits and pieces.

Tom Ashton  
Via e-mail

I enjoyed reading your last two iPad issues, and look forward to more articles and photos. Keep up the good work.

M. Fawzan Shaltout  
Cairo University  
Cairo, Egypt

We have received a number of compliments on our iPad edition. Thanks you to all who have written.  
JT

### HELP!

I was so happy to see the brand pronunciation guide within your watchtime.com site — until I realized it’s lacking the principal one giving me trouble: Panerai. Is it “PAN-er-eye,” which was my first inclination, or “pa-NER-ee,” which would more closely follow conventional phonetics, or something else? Help!

Ray “Mickey” Parker  
Via e-mail

Your first inclination was right: PAN-er-eye. JT

### WATERING DOWN WATCHTIME

The October issue of *Esquire* magazine features a wonderful special on watches. Their choices are of high technical merit, good taste and great value. I wish the same could be said about the choices for *WatchTime* reviews, but despite impeccable journalism, your curatorial abilities seem to have weakened of late.

Professionals in their 30s who are looking to buy a watch (myself included) are likely to aim above the starter Rolex Air-King, while a \$40,000 gold Cartier Chronograph is unaffordable to all but a few. Yet the sweet spot of \$6,000 to \$12,000 has not been addressed in your magazine for awhile. I see this as a consequence of a gradual drift away from being a magazine about watches into a magazine about the watch industry. In 2002-2005, your watch reviews tended to be drier, yet more specific and to the point, and thus very helpful in deciding to buy a watch. In 2002, you used to profile and compare five watches at a time within one article, while the current style features an interview with a CEO, a firm profile, a foray into the brand’s history, its design influences and what not — your coverage of Panerai being symptomatic. Not to say there is less technical information offered, but with all this “watering down,” fewer watch profiles are offered.

Were you to run a comprehensive comparison of multiple watches once again, I would suggest starting with watches that were mostly





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A test of the Glashütte Original Senator Chronometer was the cover story of the April 2010 issue.

## “DESPITE IMPECCABLE JOURNALISM, WATCHTIME’S CURATORIAL ABILITIES IN CHOOSING WATCHES FOR REVIEW SEEM TO HAVE WEAKENED OF LATE.”

ignored yet offer the greatest value in all of the Swiss watchmaking industry: Jaeger-LeCoultre. I do not mean their ultra-complicated watches that cost half a million dollars. How about reviewing the new Master Memovox International in stainless, or a Reverso Grande GMT in gold? There are many other wonderful watches in the mid-price range the review of which would surely be appreciated, like the Maurice Lacroix Masterpiece Squelette, a gold Piaget Altiplano, steel Glashütte Senator Chronograph XL or Girard-Perregaux 1966 Chronograph.

While in college, a professor once told me to speak not of my intentions but of the results, which changed the way I present my work for good. In the same spirit, may I suggest for your magazine to concentrate once again on watches, and less on the people behind them, because if we do, watches will speak for themselves.

Yory Teperman  
Via e-mail

*It's always good to get reader input and I appreciate that you took the time to offer your critique. It deserves a considered response. Your assertion that "the sweet spot of \$6,000 to \$12,000 has not been addressed in your magazine for awhile" is simply incorrect. You wrote me after receiving the October issue, which had tests of five watches, none priced within \$6,000 to \$12,000. However, the February, April, June and August 2010 issues each had a test of a watch priced in what you call "the sweet spot."*

*A review of our six issues in 2010 shows that we tested 20 watches. Of those, eight had retail prices below \$6,000, five were in the \$6,000-\$12,000 range, and seven were priced above \$12,000. The point is that WatchTime's policy is to test mechanical watches across the price spectrum. Since the global economic crisis, we have focused on more affordable watches in our coverage. That accounts for the spike in the number of tests of watches below \$6,000. But the evidence shows that we have not ignored the \$6,000 to \$12,000 range.*

*It is true that we run fewer comparison tests, focusing instead on more in-depth tests of a single watch. But we have not reduced the number of tests. We have always featured, on*

*average, three or four watch test articles per issue. Some issues have fewer; some more. This issue, for example, has five. Prices range from a \$1,700 Tutima to a \$36,400 Lange; two of the five are in your "sweet spot."*

*Your wish list of preferred watches for testing is a good one. Is it better than the list of watches we actually tested? Each reader will have his/her own opinion about that. A test of the Glashütte Original Senator Chronometer was our cover story in the February 2010 issue. You wanted the Senator Chronograph XL. So it goes. In this issue, we test the JLC Master Memovox, which is on your list. You specify the steel version; we tested the gold one. Will you be unhappy? I hope not. Can we please everybody? Of course not.*

*As for the magazine's editorial mix, we have never been nor wanted to be a Consumer Reports for watches. We are proud that we are one of the few watch magazines in the world, and the only one in the U.S., to put our advertisers to the test. But our editorial mission has always been broader than that: to cover watches and the watch world. Our standard editorial package has always included articles about watch brands, executives, history, technology, collectors, and, when we find them, rattling-good watch yarns like the mysteries surrounding the Breguet Marie Antoinette watch, the Jaws watch and James Bond's Rolex. In short, a proper watch magazine. You seem dissatisfied with the mix but it really hasn't changed. You complain that we have "drifted from being a magazine about watches into a magazine about the watch industry." It's true that, after September 2008, we did cover the impact of the economic crisis on the Swiss watch industry, one of the few watch magazines anywhere to do so. You perhaps consider this "watering down" the content. But when the world goes through the worst recession since the Great Depression, when Swiss watch unemployment soars to 12 percent, when watch brands and suppliers go out of business, when Swiss watch exports to the United States collapse by nearly one billion francs in two years, I believe it's of interest and importance to watch aficionados. There is room for that and for watch tests in WatchTime. JT*

WatchTime welcomes correspondence from readers. Send comments to editor-in-chief Joe Thompson at 274 Madison Avenue, Suite 705, New York, NY 10016 or via e-mail to [jthompson@watchtime.com](mailto:jthompson@watchtime.com). Please include your full name, city and state, and country (if outside the United States). Letters may be edited for length or clarity. Due to the volume of correspondence, WatchTime cannot acknowledge all the letters it receives. However, each one is read in full.



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CARL F. BUCHERER

AHEAD OF THE TIMES.

# A Renaissance Man: Gino Macaluso (1948-2010)

*After buying Girard-Perregaux, Luigi “Gino” Macaluso turned the brand into one of the first manufactures of the mechanical renaissance.*

**L**uigi Macaluso, owner of Girard-Perregaux and a key figure in the mechanical-watch revival, died of a heart attack in La Chaux-de-Fonds on Oct. 27. He was 62.

Macaluso, widely known as Gino, was the CEO of the La Chaux-de-Fonds-based Sowind Group, which owns the Girard-Perregaux and JeanRichard watch brands as well as the movement maker Girard-Perregaux Manufacture and the case-and-bracelet maker EMG SA.

He acquired the GP brand in 1992, and it is for his work restoring the brand's luster and providing it with its own movement factory that he is best known. Girard-Perregaux was one of the earliest *manufacture* brands to emerge after the quartz crisis: in the 1990s, it was one of

just a few brands — Patek Philippe, Jaeger-LeCoultre and Rolex were others — that made its own movements. GP Manufacture also supplies movements to other high-end brands.

When Macaluso bought Girard-Perregaux, the company had been brought low by the quartz crisis. It made quartz movements for brands including Bulgari; its own watches contained ETA movements.

After buying GP, Macaluso introduced a string of in-house movements. Two ultra-thin automatic calibers, GP 3000 and GP 3100, came out in 1994. The 3200 and 3300 followed, and then came a column-wheel chronograph, the 3080. GP now makes four families of mechanical calibers containing a total of more than 20 different variations.

Early on, Macaluso shone a spotlight on GP's most famous model, the Tourbillon with Three Gold Bridges, which GP founder Constant Girard-Perregaux had invented in the 19th century. The first wristwatch version was launched in 1991, the year before Macaluso took the company over, and Macaluso kept the tradition alive with a parade of Three Gold Bridges models that still continues.

He explored other facets of haute horlogerie, bringing out complicated pieces like perpetual calendars and the Opera series of chiming watches.

Macaluso was born in Turin in 1948. His father was the head of the

Omega/Tissot subsidiary in Italy, but in his youth Macaluso's interests lay outside the watch business. He received a degree in architecture and then, veering in another direction, became a very successful racecar driver. In 1972, he won the European Rally Championship and in 1974 he was named the Italian Rally champion. His racing career ended the next year when his son Stefano was born and Macaluso joined his father at SSIH in Italy. SSIH was one of two Swiss conglomerates (the other was ASUAG) that merged in the early 1980s to form the Swatch Group. In 1979, he became the general manager for SSIH in Italy.

Three years later, he left SSIH to start his own watch company, Tradema, which distributed Breitling and Hamilton watches.

In 1986, he became the distributor in Italy for Girard-Perregaux. The brand's sales in Italy grew quickly; the Italian market ultimately accounted for 60 percent of GP's total volume. As distributor, Macaluso not only sold GP watches, he designed some of them, including the 7000 sports chronograph model.

GP was doing less well in other markets. But its fortunes improved under Macaluso, who quickly transformed GP into a chiefly mechanical brand poised to ride the rising wave of interest in mechanical watches.

In 1995, three years after buying GP, Macaluso merged his love for car racing with his love for watches and brought out a Ferrari line of GP mechanical sports watches under the name “Pour Ferrari.”

In the meantime, he'd been indulging his automotive passion in another way, by building an amazing collection of cars — they eventually numbered about 50 —

Luigi Macaluso





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in which he would zip around La Chaux-de-Fonds.

Macaluso launched the JeanRichard brand in the '90s. He had bought the brand, then dormant, in 1986. It is named for Daniel JeanRichard, the watchmaker credited with bringing *établissage*, or division of labor, to the Swiss watchmaking industry in the 19th century. Less expensive, and less well-known, than GP, JeanRichard at first contained only movements made by ETA, but in 2004 Macaluso began mak-

Macaluso behind the wheel of one of his 50 racecars



ing in-house movements for the brand.

GP and JeanRichard benefitted from another of Macaluso's enduring interests, architecture. Both make use of mansions in La Chaux-de-Fonds that Macaluso restored, taking pains to preserve their Art Nouveau details. Villa Marguerite, built in 1917, houses the GP museum. Another historical building, which Macaluso christened the Sowind Industries building, contains the movement-making factory. Villa Schwob, from 1907, serves as JeanRichard headquarters and also houses a museum of watchmaking tools. Macaluso lived in a fourth restored villa nearby.

He owned and restored other villas in Italy, including one in Tuscany that was so beautiful it was shown on the cover of the novel *Under the Tuscan Sun*.

Macaluso is survived by his wife, Monica Mailander Macaluso, who after her husband's death was named chairwoman of the Sowind Group holding company; Stefano, who has been named chairman of Sowind SA; Macaluso's younger son, Massimo, who has been named CEO of Sowind SA; and two daughters, Anna and Margherita. Both sons have worked at the company for about 10 years. *Norma Buchanan*

## Getting Grand

To most Americans, Seiko means "quartz." To Japanese, and, until now, Japanese alone, it has also stood for high-precision mechanical watches sold under the Grand Seiko label. Now Americans can for the first time buy Grand Seiko mechanicals, as well as Grand Seiko Spring Drive models, in this country. Until now Grand Seiko, launched 50 years ago, has been sold only in Japan.

Seiko has launched Grand Seiko watches in three U.S. stores: M.J. Miller in Barrington, IL; Feldmar Watch Co. in Los Angeles and AZ Fine Time in Scottsdale, AZ. Distribution will remain very limited, with no more than two or three

additional stores being added, Seiko said.

There are eight models in the collection being offered stateside (Grand Seiko has also been launched in Europe): four mechanicals and four Spring Drives. Retailers can special-order other Grand Seiko models if customers ask for them.

The mechanical models include a model with a new, automatic, fast-beat, 36,000 vph movement, Caliber 9S85, which has a power reserve of 55 hours (very long for a 36,000-vph movement). Seiko had manufactured a fast-beat movement in the 1960s, but discontinued it. Technological advances have made fast-beat movements more practical than

## Corrections

In "Fine Cars," (November-December 2010), the prices for the Hyundai Equus should have been specified as \$58,000 for the Signature model and \$64,500 for the Ultimate. In "A Case Study in Tuscany," also in that issue, the Anonimo Marlin Bronze was described as having a 55-mm-diameter case. The case diameter is actually 46.5 mm. *WatchTime* regrets the errors.



Grand Seiko mechanical models include one (right) with a 36,000-vph movement.



  
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they were when they debuted, Seiko says. MEMS (Micro-Electro-Mechanical Systems) technology, for instance, enables Seiko to cut tiny notches on the escape wheel to hold lubricant. It also makes surfaces smoother and hence less abrasive than other manufacturing techniques. The watch containing the movement is the SBGH005, which has a 40-mm-wide steel case. Its price is \$7,200.

The other mechanical models all contain the automatic Caliber 9S65. They have steel cases that are either 39.5 mm wide (model SBGR061) or 37 mm (models SBGR051 and SBGR053, with a light or black dial, respectively). The 39.5-mm

model, which comes on a strap, is \$5,100 and the 37-mm versions, both with steel bracelets, are \$4,400.

Seiko is proud to note that it subjects its Grand Seiko mechanical movements to tests more rigorous even than those administered by COSC. Instead of the -4 to +6 seconds/day range for acceptable mean daily rate at COSC, for instance, Seiko requires a range of -3 to +5 seconds/day. It tests the watches in six positions, instead of COSC's five, adding the crown-right position, which Seiko executives point out corresponds to the way many people lay their watches on a table overnight. The watches are tested for 17

days, rather than 15 at COSC, and an extra temperature variation (between 23 and 38 degrees Celsius, or 73 and 100 degrees Fahrenheit) is added to the battery of tests.

The new Spring Drive models, whose movements have quartz oscillators and are powered by a mainspring, are a chronograph (at \$9,700, the most expensive of the Grand Seikos in the U.S. collection); a divers' model, water-resistant to 200 meters (\$7,500); a GMT model, with center-mounted GMT hand and rotating, 24-hour bezel (\$7,200); and a simpler model with just a date window and power-reserve indicator (\$5,700).



Allen Brill

## Bleeding Rolex Green: Allen Brill (1946-2010)

At the end of September, Rolex USA CEO Allen Brill learned he had an advanced stage of lung cancer and that the prognosis was grim. He kept the news secret. Few people in Rolex knew about his illness. When he died over the Thanksgiving weekend at the age of 64, the news shocked the U.S. watch community.

Brooklyn-born Brill had a rapier-like wit and a magnificent baritone voice with a New York accent he never lost, despite decades of living in Atlanta. He began his watch career at Bulova in the 1970s, leaving in 1978 to take a job as Rolex's sales manager in the southeastern United States. He worked his way up the Rolex Watch USA hierarchy, becoming national sales manager, senior vice president, and executive vice president of sales. In 2004, Rolex Geneva tapped him for the most powerful watch position in the United States, the Rolex presidency. It was a stunning development. Since Rolex had set up its U.S. subsidiary here in the 1930s, it had had three CEOs, all Swiss. When Brill's predecessor, Walter Fischer, decided to retire, everyone expected Rolex Geneva to appoint a Swiss successor. That conservative Rolex selected (egad!) an American was a credit to both Brill and Rolex.

It was a shrewd move. Brill was passionate about Rolex. "Doug and I," he once told me, referring to his executive vice president, the recently retired Doug Meine, "bleed Rolex green." Moreover, he had an intimate knowledge of Rolex's wholesale network of authorized dealers and a comprehensive knowledge of the U.S. watch market.

As CEO of Rolex USA, he brought a fresh all-American atti-

tude and spirit to a brand that was steeped in Swiss stuffiness. One example: shortly after his promotion, I got a call from him. "What's the difference between a president and a CEO?" he asked. I didn't know. "Why?" I asked.

"Because I am looking at my new business cards, and there are two titles, I don't know what the difference is and I want to find out." It was quintessential Brill: funny and self-effacing. This was a new voice at Rolex.

Among the changes Brill brought to Rolex was a more open attitude to the press, particularly the specialized watch press. Brill was proud of the fine details in Rolex's production process and believed strongly in communicating them. He was instrumental in softening Geneva's entrenched policy of not communicating details about Rolex's production and product features.


"There is no way to measure his love for Rolex and its employees," Rolex USA said in a statement announcing Brill's death. "It was his life and his home for over 30 years. Much of what makes the company successful today can be attributed to his leadership and his confidence in the Rolex team. We often heard from Allen, 'Let's just keep doing things a little better every day.' We are proud to follow his advice."

Brill liked press for his brand but not for himself. He avoided the spotlight and loathed self-promotion of any kind. Before he died, he stipulated that, upon his death, Rolex should not release any photos or biographical information. "You know how he was," Rolex's PR officer told *WatchTime* in declining a request for a photo. "He never wanted a big deal to be made over him."

Brill will be succeeded by Stewart Wicht, a 35-year Rolex veteran from Geneva.

Joe Thompson





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## Clocking the Jaguar

Bremont's newest bespoke mechanical clock, specially produced for the new Jaguar C-X75 supercar, is the fruit of a collaboration between the proudly British watch brand, founded by aviators Nick and Giles English, and the iconic, U.K.-based luxury automobile maker.

The Jaguar C-X75— a four-wheel-drive concept car with an extended-range electric motor — made its debut at the Paris Auto Show in September 2010 and commemorates 75 years for the Jaguar brand. Finished in jetstream silver, the car stays true to Jaguar's design heritage of flowing lines and elegant shapes in its exterior, while looking to the future with its use of environmentally friendly electric technology, in place of the conventional piston engine, to power the vehicle.

The movement of the clock, which mounts in a turbine-inspired holder in the car's center console, uses the car's acceleration and braking force to power up and to stay wound. The designers of the car



*Bremont's new mechanical clock (below) is mounted in the console of the Jaguar C-X75.*



patterned the look of the clock after Bremont's MBII wristwatch, a timepiece inspired by another British company, Martin Baker, the leading maker of pilots' ejection seats. Jaguar even added its own Martin Baker tribute to the car's interior design: the doors' release handles are crafted of aircraft-grade aluminum and positioned at the base of the seats as an ejector-seat lever would be.

## On Our Web Site

Here's a glimpse of some of the watch articles you'll find on our Web site at [www.watchtime.com](http://www.watchtime.com):

- **Cristophe Claret:** Online editor Mike Disher talks to the celebrated watchmaker. Claret (below) designs and makes not just movements, but movement-making machines used by the likes of Patek Philippe, Audemars Piguet and



Breguet. And, as of two years ago, he has had his own watch brand. This year, he tells Disher, he'll expand his collection with two new models.

- **Action-movie watches:** It takes a tough watch to stand up to vengeful space aliens and bomb-toting narco-terrorists. Test your knowledge of who wore what watch in what action film.
- **Zenith:** The company that brought you the El Primero automatic chronograph now brings you the El Primero Tourbillon (above), whose features include a 50-hour power reserve, unusually long for a watch

with a power-hungry, 36,000-vph balance. See photos of the watch and an exploded view of the movement.

- **New watches from SIHH:** The season for new watches is upon us. Check out some of those being launched at SIHH in January. They include the Audemars Piguet Millenary Minute Repeater (bottom photo), the Girard-Perregaux 1966 Small Second, the Vacheron Constantin Quai de l'Île Retrograde Annual Calendar (below) and the Ralph Lauren Sporting Watch.





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## Pirates of Time

Graycliff, the five-star hotel-restaurant resort in the Bahamas that was once the mansion of a wealthy pirate, began expanding its brand in 1997 with the introduction of a boutique line of cigars made at its own small factory in Nassau. More recently, it opened Graycliff lounges at select airports and launched its own line of 100-percent-certified-organic Graycliff espressos and coffees. This year sees the debut of Graycliff limited-edition timepieces, the pet project of Graycliff Cigar Company president and watch enthusiast Paolo Garzaroli.

“With the creation of the Graycliff Timepiece Division, our company has made a commitment to be in the watch business for many years to come,” Garzaroli says. “I consider myself part of the target audience for all



*Graycliff men's chronographs*



*Graycliff Hotel and Restaurant*

our products and know that these are watches the Graycliff customer will want to wear.”

There are five models, all with Swiss quartz movements, made by Ronda, the movement-maker based in Lausen, Switzerland. Each movement carries a 10-year warranty and each of the stainless-steel cases is triple-plated for scratch-resistance and water-resistant to 50 meters. The men's models are all chronographs, with either steel bracelets or crocodile-embossed leather straps, and feature rose-gold, carbon fiber or silver accents. Ladies' models have mother-of-pearl dials set with crystals and scratch-resistant ceramic cases and bracelets.

No more than 50 of each style will be produced, and distribution is thus far limited to the Graycliff Boutique and Divan lounges at Nassau's Linden Pindling International Airport and Nashville International Airport, and select retailers of Graycliff cigars. Prices range from \$1,200 to \$1,400.



## Q&A

*At a sale on Nov. 15 in Christie's in Geneva, the highest bid was for a Patek Philippe Reference 2523 made in 1953. How much did it fetch?*

2,675,000 Swiss francs, or about \$2.7 million. It was the most ever paid for a Reference 2523.

## FH Fights Fraud

As part of its campaign to combat watch counterfeiting, the Federation of the Swiss Watch Industry (FH) has put on its Web site a form that consumers can use to report the marketing of counterfeit watches on the Web. The form, which can be accessed at [www.fhs.ch/en/reportabuse.php](http://www.fhs.ch/en/reportabuse.php), enables consumers to tell the FH about any Web site that offers counterfeit watches. They can also

report the offering of such watches on auction sites and any spam they receive related to counterfeit watches. In addition, the FH has created a fake Web site to lure counterfeit-watch customers. When they go to the site ([www.replicaswisswatches.com](http://www.replicaswisswatches.com)), they are warned of the dangers of buying counterfeit goods, which include giving counterfeiters access to their credit card information.





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The Phantom Black Ops is the most legible Kobold watch ever produced. It is also the first professional-grade wrist instrument with U.S.-made components, which is why its dial proudly displays the watch's city and state of origin.

As part of its commitment to the Navy SEAL Warrior Fund -beneficiary of Kobold's 2009 and 2010 expeditions to Mt. Everest- Kobold will donate part of the proceeds of every Phantom Black Ops to the Fund.

For more information, please call 1-412-722-1277  
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21.7

Millions of watches that Swiss companies exported in 2009

250

Components in the case of Jaeger-LeCoultre's Reverso à Eclipse watch

8

Years, on average, that a watch company spends developing a complicated movement, according to the Fondation de la Haute Horlogerie

26.1

Millions of watches that Swiss companies exported in 2008



10

Millions of dollars, on average, spent to develop a complicated movement, according to the Fondation de la Haute Horlogerie



855

Boutiques owned by the Richemont Group as of September 2010

19

Exhibitors at the Salon International de la Haute Horlogerie

1,800

Exhibitors, including non-watch companies, at Baselworld



10

Percentage of total sales that watch companies devote to research and development, according to the Fondation de la Haute Horlogerie



2

Number of Breguet boutiques in Manhattan

18,400

Average number of fans that watch brands have on Facebook (as of 2009), according to the World Watch Report

10

Number of watches that celebrated British watchmaker Roger Smith makes in a year



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What trend did Movado  
buck in 2010?

# The Year that Was

*A look back at important, and not-so-important, watch events of 2010*

**1. What movement maker went out of business at the beginning of the year?**

- A. Sellita
- B. BNB Concept
- C. Soprod
- D. La Joux-Perret

**2. In September, A. Lange and Söhne announced that Wilhelm Schmid would be its new CEO effective Jan. 1. At what company did he work most recently?**

- A. BMW
- B. Volkswagen
- C. Porsche
- D. DaimlerChrysler

**3. What watch-related event occurred on Sept. 22?**

- A. George Clooney's Omega Hour Vision was stolen from his hotel room at New York's Four Seasons.
- B. TAG Heuer announced it had ended its association with Tiger Woods.
- C. Hublot gave Alex Rodriguez a Big Bang King Power Black Magic in Yankee stadium.
- D. Rush Limbaugh threw his Royal Oak Offshore at Oprah Winfrey after an argument in a restaurant.

**4. Who succeeded Nicolas G. Hayek as chairman of the Swatch Group after he died in June?**

- A. Nayla Hayek, Nicolas Hayek's daughter
- B. Nick Hayek, Jr., Nicolas Hayek's son
- C. Marc Hayek, Nicolas Hayek's grandson
- D. Stephen Urquhart, CEO of Omega

**5. What watch does Sylvester Stallone wear in his 2010 movie *The Expendables*?**

- A. Panerai Luminor 1950 Regatta Rattrapante
- B. Panerai Mare Nostrum 52mm
- C. Panerai Luminor 1950 10 Days GMT
- D. Panerai Radiomir GMT Alarm

**6. Romaine Jerome introduced a watch commemorating what event?**

- A. Spain's winning of the World's Cup
- B. Global Warming Awareness Day
- C. The 150th birthday of the brand's founder
- D. The eruption of the Eyjafjallajökull volcano

**7. Christie's announced in January that it would auction what piece of Americana?**

- A. A Waltham watch once owned by Abraham Lincoln
- B. A loupe used by Henry Ford in his early days as a watch repairer
- C. Thomas Jefferson's watch key
- D. A letter that Mark Twain sent to Elgin requesting a watch

**8. Which item brought roughly \$2 million at a Patrizzi & Co. auction in May?**

- A. A manuscript by Abraham-Louis Breguet
- B. John Harrison's death mask
- C. A watch that Marilyn Monroe gave to John F. Kennedy
- D. A portfolio of watch-movement sketches by Louis XVI

**9. In a move that ran counter to a major watch-industry trend, Movado decided that it would:**

- A. Return to making only quartz watches
- B. Close all of its Movado-brand boutiques

- C. No longer use celebrities in its advertisements
- D. Stop selling watches on its Web site

**10. Montblanc was the official timer for what sports event?**

- A. The U.S. Open Tennis Championships
- B. The America's Cup
- C. The Belmont Stakes
- D. The Lexington Dressage Tournament

**11. For what fashion brand did the Sowind Group (owner of Girard-Perregaux) agree to make watches?**

- A. Ermengildo Zegna
- B. Prada
- C. Bottega Veneta
- D. Pink

**12. In August, the Swatch Group announced that:**

- A. It was discontinuing several brands in the U.S.
- B. Its first-half gross sales had exceeded 3 billion Swiss francs for the first time.
- C. It would resume selling movement kits at pre-2008 levels.
- D. It would time the 2012 Olympics under the Longines brand.

**13. For the first nine months of the year, Swiss watch exports to mainland China:**

- A. Were nearly flat with those of the prior year
- B. Rose 17.4 percent over the prior year
- C. Rose 35.2 percent over the prior year
- D. Rose 58.8 percent over the prior year

Answers: 1B; 2A; 3C; 4A; 5A; 6D; 7C; 8A; 9B; 10C; 11A; 12B; 13D



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MARTY BERNSTEIN

# Audi's New Aristocrat



The 2011 Audi A8 sedan

*The 2011 A8 sedan takes German luxury to the next level.*

edges, while the A8 is more sophisticated and elegant in its design. It is pure *haute couture* on wheels.

Audi's massive trapezoidal grill uses horizontal chrome bars topped with an inset of the brand's interlocking-circles logo. All this chrome is accented with a design element Audi pioneered — the curvy, light-emitting-diode (LED) string of signature and running lights that made its cars recognizable on the road day or night, or at least until the knock-offs appeared. Optional LED headlamps that will put Hollywood Klieg lights to shame are an industry first.

The sedan's side view is sleek and aerodynamically modern, yet establishes a graceful presence. However, the bland, boring rear end of the A8 needs a major design infusion. The A8 doesn't announce your arrival impudently or pretentiously; it does so elegantly and stylishly, and that alone generates points with the parking valet.

Propelling the A8 is a powerful, 5.1-liter, 372-horsepower, direct-fuel-injection V8 with 328 lbs of torque. When pushed (and I pushed it), it will press you back in the driver's seat as the eight-speed transmission (paddle shifters, of course) moves it from zero to 60 in just under six seconds.

And, surprise! The A8 is fun to drive. It is agile, responsive, feels lighter than it is and has exceptional handling characteristics that can be customized by selecting one of the four driving modes: dynamic, comfort, auto and individual. Each mode has set parameters that automatically initiate computer-aided adjust-

ments to suspension, steering, accelerator, transmission and differential to enhance the drive and feel of the car. Audi is the only luxury brand to make its Quattro all-wheel-drive system a standard feature, which denizens of northern climes will appreciate.

The spacious interior of the A8 sets the benchmark for automotive *feng shui* with its harmonizing colors, lavish materials and lighting effects that make driving (or riding in) this vehicle a pleasant experience. Augmenting the interior is a treasure trove of more technological goodies — for comfort, safety, information, entertainment, logistics, data, music and driving operation — than I've seen in any automobile.

Fortunately for the Luddites and the computer-challenged, the technological innovations are intuitive, automated or easy to operate. The drive-by-wire gear selector, however, which is shaped like a yacht's throttle lever, takes some getting used to. For the techno-savvy, there's a new, optional touch-technology pad that recognizes the driver's handwriting to enter various commands for multimedia, navigation and communication. The A8's lengthy list of automatic safety features, which recognize or anticipate imminent driving problems, provide a calming sense of confidence.

Prices for the A8 start at \$78,050 and rise to \$84,000 for the A8L, not including options, which are many. While Mercedes and BMW still rule the category, Audi, with this luxury sedan, is making a bold statement that it belongs right there with them. ○

Once upon a time, Detroit's luxury cars — Cadillac, Lincoln and occasionally Chrysler — were the monarchs of the road. In modern times, they've been dethroned by purveyors of regal luxury from Bavaria, like BMW and Mercedes-Benz. Now, a third German brand has quietly risen in its styling, technological innovations and accomplishments to challenge the reigning Big Two.

That brand is Audi, and with the introduction of the 2011 A8 sedan, now its flagship model, it joins the upper echelon of German-made luxury sedans. Actually there are two luxury A8s: one is the standard A8 with a 202-inch-long wheelbase. The other, the A8L, has a wheelbase 5½ inches longer, which means more rear seat room along with additional, optional accessories and infotainment options. All else remains the same. I drove the shorter A8 (which is not really that short) for a week.

Other German luxury sedans, like the Mercedes S-class and BMW 7 series, have a sharp look, with sculptured lines and



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JAN DIVINCENZO

# Return of the British Mammoth

*Onoto's flagship of yore, the Magna, is not extinct after all.*

When Onoto emerged from 46 years of dormancy in 2005, it was to produce commemorative pens: the Horatio Nelson celebrating the Admiral's Trafalgar victory, the Centenary in honor of Onoto's 100-year anniversary, and the Royal Ballet 75th Anniversary pen. But what those who use fountain pens have been waiting for is an Onoto that measures up to the highly collectible models of the 1930s and '40s, or, more specifically, an Onoto writers' pen.

Thomas De La Rue & Co., Ltd, the original manufacturer of Onoto The Pen, was one of the world's largest printers and stationers at the turn of the 19th century, dominating the U.K. market in the production of postage stamps, bank notes, playing cards and envelopes. When De La Rue launched Onoto The Pen in 1905, it featured the original vacuum filler, which found its way into many Golden Age models, such as the Conklin Nozak, Wahl Doric and Sheaffer Triumph, and the present-day Pilot 823 and Visconti "power filler" pens. De La Rue threw £50,000 into marketing the Onoto, an unprecedented promotional expenditure for a writing instrument, which spread the Onoto's popularity to Japan, India, Europe and the U.S., where the company opened offices at 261 Broadway in New York.

A suite of Onoto pens followed, of which the acme was the Magna. It debuted in 1937 and represented state-of-the-art engineering and materials. As the ad copy boasts, it was a "mammoth pen," measuring 14 cm capped, with a big, two-tone, number 7 nib. The materials of the cap and barrel featured "light

visibility," an opaque-and-transparent plastic patented by Edward Gibson Knight and manufactured in De La Rue's factory in northeast London. The Magna had classic, art-deco styling, three cap bands, and a dagger-shaped clip. This pen from Britain's most successful pen company also had some technical glitches: its feed collector was too small, its plunger was not operationally consistent, and its reservoir pans tended to flood when exposed to temperature changes. But, like its American analog, the Parker Vacumatic, the Magna compensated by delivering a superb writing experience.

Only three years after the Magna, De La Rue's factory at Bunhill Row burned in the 1940 Blitz. The company retrenched in Strathendry, where it ceased pen production to produce plastic parts for the RAF. Although De La Rue resumed production of the Magna in 1947, these lever-fillers didn't really take hold and, in the larger context, were obscured by the Biro (ballpoint), which eventually absorbed the demand for daily writing instruments.

The Onoto  
Magna Writer



De La Rue ceased all pen production in 1958 and the Onoto Pen Company lay dormant until 2003, when English entrepreneur James Boddy, cognizant of the company's British cachet and history, purchased it to produce the Horatio Nelson pen. The success of the subsequent Centenary model, which was based on the Magna, encouraged a reissue of the Magna proper. So far, Onoto has released three primary editions of the Magna: The Writer's Pen, the 261, and the most recent, the Classic.

The new Magnas are made of a high-density resin and have a more mesomorphic build than the original, with a slightly shorter body, longer cap and a more angular, tapered shape. Their number 7 nib is available in gold-plated steel or 18k gold. Their barrel imprint, "Onoto The Pen," and dagger clip are true to the originals. Their center cap band bears the Onoto maker's mark, the Birmingham Assay Office anchor sign, the "925" silver standard and the year letter, the significance of which is explained in a booklet on British hallmarks provided with the pen. The new Magna does not have the legendary plunger-vac filler, with its voluminous capacity, but a standard Schmidt K5 converter.

Like all reissued classics, this model comes into a luxury-oriented market for fountain pens. Adjusting for inflation, at £260 (about \$400) it is twice the cost of the original. The good news is that the Magna, while it may not have the filler that made Onoto a landmark in pen history, is a robust, functional pen that performs exceptionally — a sign that Onoto is in good health. ○



# The Best of the Best...

*Don Blakeslee - the most  
decorated World War II  
Army Air Force fighter pilot*

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RICHARD CARLETON HACKER

# Aging Tastefully

*Exploring the complex world of vintage single malt Scotch*

Most of us are used to selecting single malt scotch not only by distillery and style, but by the age statement on the bottle, which represents the youngest of the whiskies inside. Thus, the rich, resinous Macallan 18 Year Old, cannot — by law — contain whiskies younger than 18 years, but could have whiskies from the same distillery that are older. This enables the master blender to maintain a flavor profile so that, in this example, a bottle of Macallan 18 will be identical in taste to any other bottle of Macallan 18.

Vintage whiskies, on the other hand, are distinctive in flavor from year to year, much like wines. Unlike wine — and more like vintage port — vintage single malts are only declared in extraordinary years. However, a single malt's vintage actually reflects the year the whisky was first put into barrels to age it. It has nothing to do with growing seasons, nor does it reflect distillation, which basically hasn't changed in centuries. The Glenlivet Nàdurra Tri-

umph 1991, distilled with Triumph barley, was casked in 1991; hence its vintage year. But whisky vintages, unlike wine vintages, don't give a clue as to taste, while age statements do. But age statements don't always tell the whole story.

"You can't say that a 12-year-old whisky one day suddenly matures, just as you can't say a lad at 16 suddenly becomes mature," says Ronnie Cox, Brand Heritage Director for The Glenrothes, which is owned by Berry Brothers and Rudd, founded in 1698 and Britain's oldest wine-and-spirits purveyors. "Also, age statements give a false impression that a 12-year-old whisky is not as good as an 18-year-old whisky. It's simply a matter of taste. With a vintage whisky, we're not selling age; we're selling maturity. We're guaranteeing that whatever we bottle is going to be mature, not necessarily older or younger."

Glenrothes is prominent among vintage single malts. It began with its Vintage 1975, and then, coinciding with the distillery's centennial, the 1979 vintage. It has since issued vintages for 1985 (just re-released, thanks to some casks still stored in its Speyside warehouse), 1994, and the newly-released 1998, a rich, satisfying dram full of cinnamon and spice laced together with a thread of smoke.

"In 1993 we started to look at the malt whisky business in a

very different way," says Cox, "in a typically Berry Brothers and Rudd way, which is a wine way. We looked at all the 12- or 15-year-old malt whiskies available at that time, and in tasting them, we discovered a huge variance. Some tasted very young, while others tasted 12 or 15 years old or older. We then researched further and applied the same sort of knowledge to the whisky business as we applied to the wine business, which was that each of the whiskies would mature in its own way and not in relationship to a particular age in which it would become mature. With single malts, a vintage year is really nothing more than when that particular barrel of whisky peaked, and then going back to see when it was first put in casks."

But they have to be exemplary casks. For example, the newly-released Dalmore 1981 Amoroso, with nuances of crushed almonds and warm, juicy berries, is comprised of a single malt whisky put into ex-bourbon barrels on November 24, 1981 and matured for 26 years. Then it was aged for an additional 18 months in Spanish sherry casks that had previously been filled with amoroso sherry.

"It all came together when I nosed the spirit," recalls Dalmore master blender Richard Paterson. "That dictated calling it a vintage for the year of the barrels. But only the blender can make that decision."

In that aspect, vintage single malts share a commonality with port makers, who also declare vintages. However, unlike wines or ports, vintage whiskies have nothing to do with *terroir*. Even so, Cox makes an interesting case for vintage whiskies.

"It's interesting," he says, "you don't see an age statement on wine." ○



*A vintage selection (l to r): Limited-edition single-cask Highland Park distilled in 1990 and bottled in 2004; a rare Ardbeg Vintage 1978; and the just-released Glenrothes 1998. The watches are a vintage Omega pocket watch (r) and the new Graycliff Gentlemen's Chronograph.*



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MARK BERNARDO

# The Cigar that Built CBS

*The legendary La Palina, created by the Paley family, makes its return.*

As someone who has covered the worlds of both cigars and watches, it is one of my pet peeves that brands like Dunhill and Davidoff, now widely known as purveyors of fashion and luxury accessories, including watches, take great pains to obscure their tobacco-industry roots. Certainly, today's anti-smoking attitudes figure into their decisions to play up the mystique of their founders' names while distancing themselves from the tobacco products that made those names famous. But trading on the name of Alfred Dunhill without mentioning pipes or of Zino Davidoff without mentioning cigars is like penning a tribute to Henry Ford and leaving out all that stuff about automobiles.

Conversely, however, the reintroduction of the classic La Palina cigar brand, headed up by William C. "Bill" Paley, son of CBS founder William S. Paley, has served as a reminder that the famed Tiffany network also has tobacco leaves woven into its foundation.

In the 1800s, a Ukrainian immigrant named Samuel Paley came to Chicago and went to work in a cigar factory as a *lector*, an employee who read books and newspapers to the other workers. He worked his way up to being a roller and then a blender, and in 1896, opened up his own shop and factory, calling it Congress Cigar Company. Its first and most popular product was La Palina (literally, "female Paley"), a cigar named for Sam's wife Goldie Drell Paley and which even featured her likeness on the band.

Sam's son, William, came on board as Congress Cigar's vice president of advertising after the company moved to Philadelphia in 1906. William, enamored

with the emerging marketing possibilities of radio, created "The La Palina Hour," a radio program sponsored by the brand that helped to increase its sales. The success of this endeavor motivated (and financed) William in his next career move: he purchased five Philadelphia radio stations, which became the basis of the Columbia Broadcasting System, or CBS. William's broadcast network became a giant; Congress Cigar Company, on the other hand, closed up shop after Sam's retirement in 1926.

It was left to the next generation of Paleys to resurrect La Palina. The project began with Paley, Jr.'s desire to create a specialty cigar for his guests at Lightbourne House, the Paley family retreat in the Bahamas. After re-acquiring the rights to the brand name, Paley, Jr. approached Avelino Lara, the expatriate Cuban cigar master who had been making cigar blends for Graycliff, a boutique cigar brand located in Nassau. Lara took him up on the offer to create a modern-day line of La Palina cigars. Made at Graycliff's small Nassau factory, it de-

buted early this year with the 1896, a 4¾ x 52 robusto with Honduran and Nicaraguan filler, a Costa Rican binder and an Ecuadorian wrapper. Named for the year of Congress Cigar's founding, the 1896 is a tribute to Samuel Paley. The follow-up Family Series introduced a Costa Rican wrapper to the line and consists of four cigars named in honor of Paley family members: The Babe (a 5½ x 50 toro named for Paley, Jr.'s mother, fashion icon Barbara "Babe" Paley) and Pasha (a 7¼ x 52 Churchill with an unfinished foot that bears his father's nickname) use a velvety Costa Rican wrapper. The Alison (a 6 x 52 torpedo named for Paley, Jr.'s wife) and Little Bill (a robusto named for Paley, Jr. himself; it was the nickname that distinguished him from his father) both use the same spicy Ecuadorian wrapper as the 1896.

After tasting one from each blend, I found the 1896 to be a fairly powerful, full-bodied cigar, with loads of espresso and bittersweet cocoa notes layered over a rich, creamy structure. Unfortunately, with its short length, it's over before the flavors develop fully in their complexity, and leaves you wanting more. On the other hand, the Pasha is just the right size for a truly leisurely after-dinner smoke. The uncut, ragged foot takes a while to light evenly, but it's worth it: rich flavors of caramel, roasted nuts, chocolate and a dash of pepper build in complexity as it slowly burns, and leave a pleasantly spicy, cedary aroma. Best of all, Goldie Paley still smiles from the ornate band, frozen in time and surely not at all ashamed of the debt her family's broadcasting empire owes to a little cigar factory in Chicago. ○

*The La Palina 1896 Series*





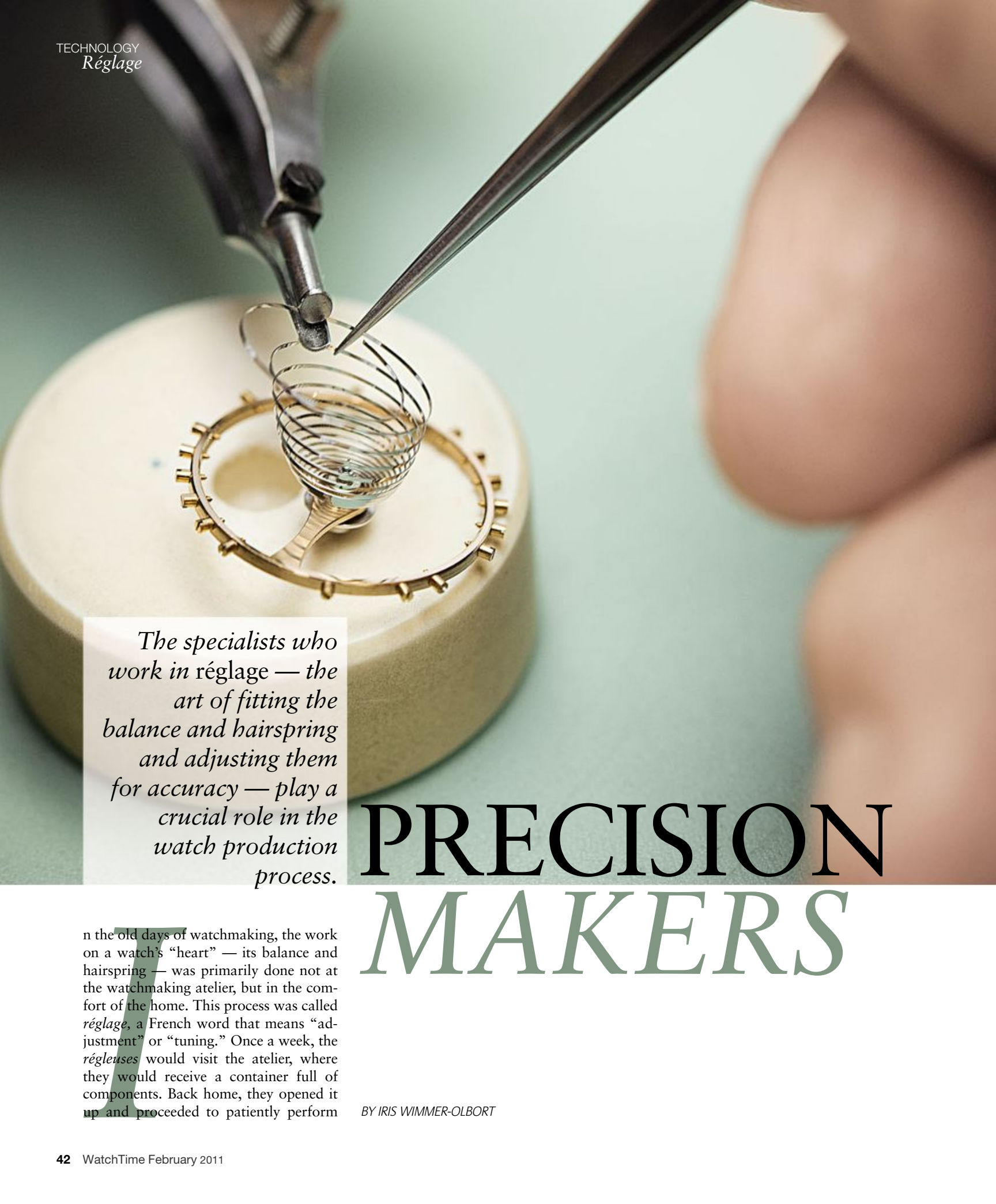


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*The specialists who work in réglage — the art of fitting the balance and hairspring and adjusting them for accuracy — play a crucial role in the watch production process.*

# PRECISION MAKERS

In the old days of watchmaking, the work on a watch's "heart" — its balance and hairspring — was primarily done not at the watchmaking atelier, but in the comfort of the home. This process was called *réglage*, a French word that means "adjustment" or "tuning." Once a week, the *régleuses* would visit the atelier, where they would receive a container full of components. Back home, they opened it up and proceeded to patiently perform

BY IRIS WIMMER-OLBORT

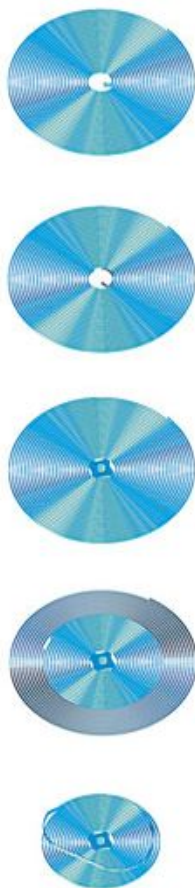




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Top to bottom: After the blank for a hairspring has been annealed in a high-vacuum furnace, it's cut on the inside, its collet is welded on, it's cut on the outside, and its terminal curve is bent.



the tasks necessary to complete the assembly: fitting the balance wheel, installing the hairspring by connecting it to the balance staff, shortening the spring to the proper length, meticulously bending its terminal end, and pressing it into its outer holder, the so-called "hairspring stud." At the end of each week, the *régleuses* would deliver the fully assembled balances back to the atelier, where each completed subassembly would be installed into a watch movement.

This was business as usual until the quartz crisis of the 1970s. The profession of the *régleuse* (a male was called a *régleur*) was regarded mainly as "women's work," a job that a woman could do at home after completing a few years of specialized training.

Today, the assembly of escapements is no longer considered a cottage industry. Instead, Swiss watch companies and their suppliers entrust this delicate task to highly skilled in-house professionals called "watch workers: finishing/timing" and "watch workers: hairspring," to use the official industry terms. "Watch workers: finishing/timing" install the hairspring and adjust the escapement, skills

they learn during a course of study that includes 2,500 hours of training, while "watch workers: hairspring," spend two years learning the skills needed to adjust and regulate balances. Starting in the mid-19th century, highly specialized companies took over the production of these components, but when the rise of quartz technology caused a consolidation in the Swiss mechanical-watch world, these smaller firms merged to create larger entities.

For example, FBR (Fabriques de Balanciers Réunies), the Swiss makers of balances, merged with FAR (Fabriques d'Assortiments Réunies), the maker of pallets and escape wheels, and FSR (Fabriques de Spiraux Réunies), the manufacturer of hairsprings, to create Nivarox-FAR. This company, which now belongs to the Swatch Group, is the largest supplier of balance wheels, hairsprings and balance staffs. Most of these components are delivered as prefabricated subassemblies. The Swatch Group and Nivarox are, unfortunately, very secretive about the details of their manufacturing processes. However, as more luxury brands and manufacturers strive for greater autonomy, some of them offered us glimpses into their own manufacturing of balances and hairsprings. While Nivarox primarily does large-series production using mostly automated production methods, these smaller *manufactures* often rely more on old-fashioned craftsmanship.

The German brand Nomos, for example, stamps and mills balance wheels on its own premises from sheets of copper-beryllium alloy. The holes to accommodate weighting and regulating screws are drilled on a lathe; the balance wheels are then embellished by polishing, matte

A specialist at Nomos poises a balance wheel on a balance scale.



Specialists in Jaeger-LeCoultre's ateliers manually insert regulating screws into balance wheels.







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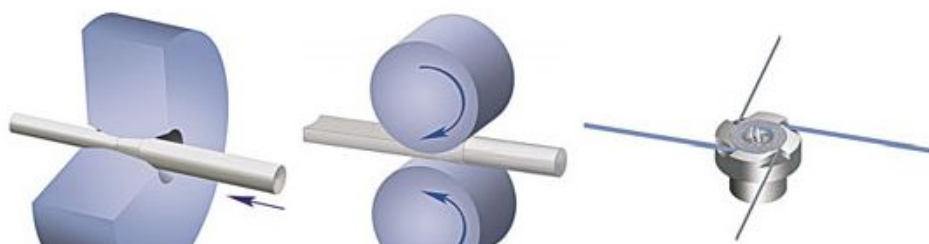
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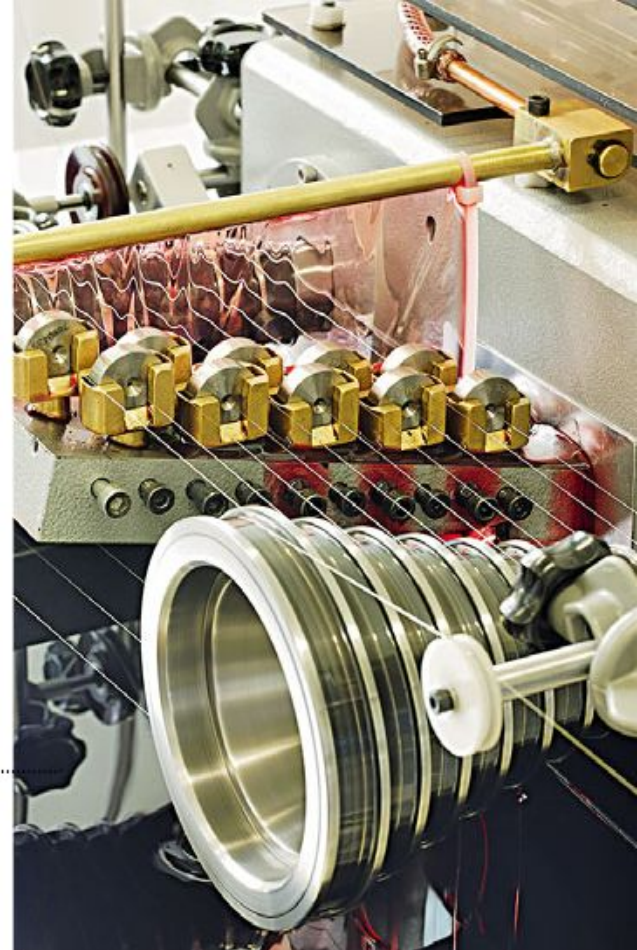


*Above: At A. Lange & Söhne, a wire is drawn 10 to 12 times through diamond drawing dies (left), which reduce its diameter to 0.05 millimeters. The wire is then pulled between rollers, which flatten it into a strip (center). The flat, milled strip is then inserted into a so-called "winding ring" (right), where it is spirally wound and then further processed in a high-vacuum furnace.*

finishing or gold plating. Nomos also makes its own balance staffs, which are then riveted into the balance wheel. After the weighting and regulating screws have been screwed in, the balance can be poised on a balance scale. This is the first step in the *réglage* process. After the wheel is placed on the balance scale, a gentle current of air is directed toward it, causing it to turn. If the balance shows symptoms of a center-of-gravity error (for example, it swings back in the reverse direction or its rotations aren't perfectly circular and planar), fine adjustment is required. This usually involves paring minuscule shavings of metal from the weighting screws.

When everything runs smoothly, the blank of the hairspring can be installed in a process that Swiss watchmakers call "*virolage*." Some watch companies also fabricate hairsprings, for example, Ger-

many's A. Lange & Söhne and Switzerland's Montblanc. This process begins with a wire that must have its diameter reduced to between 0.05 and 0.11 millimeter. To do this, workers draw the wire through drawing dies with progressively smaller apertures. The resulting slender wire is then flattened between a pair of rollers: depending on which type of hair-spring is required, the finished wire will measure between 0.018 and 0.04 mil-



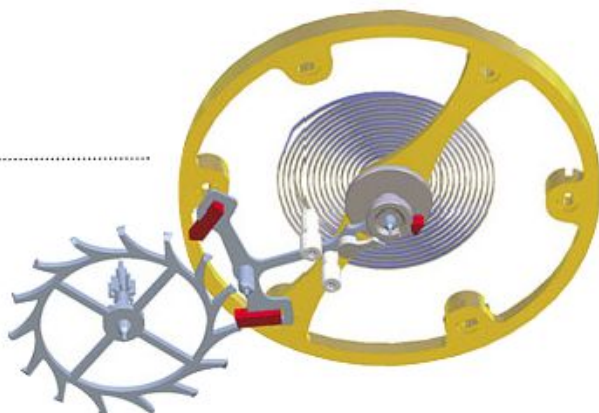
*In the first step of the process for making hair-springs at Montblanc, the diameter of a wire is reduced by pulling it through drawing dies.*

limeter thick and from 0.1 to 0.2 millimeter wide. It is then cut to length and wound into a spiral. To keep the hair-springs in their spiral shape, they must be heat-treated at several hundred degrees Celsius.

The wire has now become a hair-spring, which a *régleuse* or *régleur* pins to the balance. The next step is to determine the proper length for the spring: at Nomos and Montblanc, this task is performed manually by experienced *régleuses* or *régleurs*. The process is called *comptage* (counting) and it ranks among the most complicated phases of the *réglage*. Counting requires a tool that is seldom used nowadays: a *potence* (staking tool), on which the balance is set in oscillation and its frequency is determined.

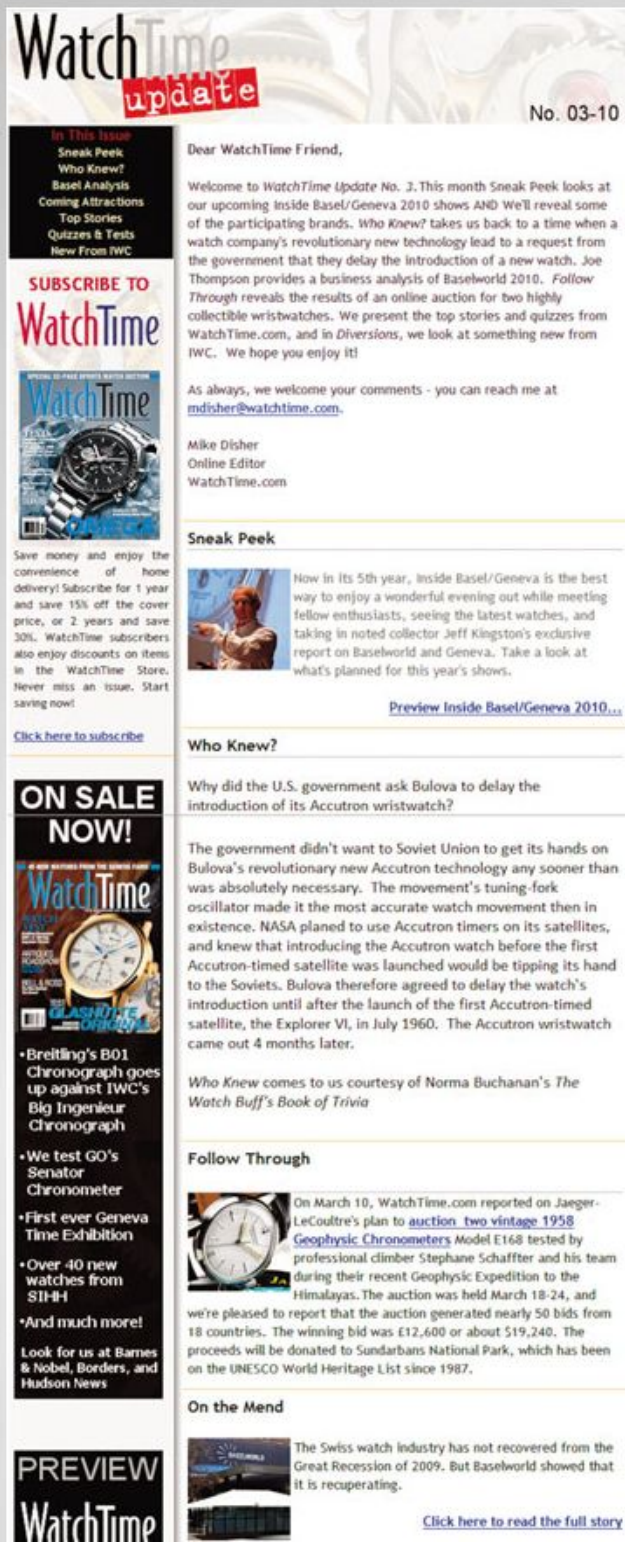
The staking tool is the watchmaker's equivalent of a split-level home. The lower floor contains a balance, safely ensconced under glass and oscillating at the correct frequency. The upper floor is where the work is done: the new balance is set into oscillation here and the practiced eye of the *régleur* compares its motions to those of the reference balance be-

*A Swiss lever escapement, with a perfectly adjusted balance and hairspring*





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low it. By shortening the length of its hairspring, the upper balance can be coaxed to oscillate in synchrony with the lower balance. The process sounds simple, but requires a great deal of experience.

The hairspring is progressively shortened until the balance oscillates at the correct frequency. Afterward, depending on the desired construction, the spring's outer end will be bent into either a Breguet or Phillips terminal curve and then pinned to its stud. This step of the work traces its origins to a discovery made in 1795 by Abraham-Louis Breguet (1747-1823), who found that the oscillating behavior of a hairspring could be improved by bending its outer end upwards in a specially calculated terminal curve. Hairsprings of this type have been known

as "Breguet hairsprings" ever since. The very similarly shaped "Phillips terminal curve" hairspring dates from 1860 and is the brainchild of the French engineer and mathematician Edouard Phillips (1821-1891). Unlike Breguet, whose results were derived from empirical trials, Phillips used mathematical calculations to determine the ideal shape for the terminal curve. Phillips's tables are still used as a basis for shaping these components in, for example, watches from Montblanc's Collection Villeret 1858 and in some models in Chopard's L.U.C collection. An experienced specialist typically requires between two and three hours to complete the delicate task of bending a hairspring's outer end into the correct curvature.

But the work of a *régleuse* or *régleur* in one of Montblanc's workshops in Villeret isn't completed when the terminal end of the hairspring has its correct curvature. The finished balance, which now contains its hairspring, must be installed in a trial caliber, where it must demonstrate its accuracy in five positions and undergo fine adjustments until it achieves the desired degree of precision. The finely adjusted balance is then removed from the trial caliber and given to a watchmaker, who will install it into the one for which it is intended. After assembling the complete movement, the watchmaker gives it a second fine adjustment. In *manufacture*-made calibers from high-end watch brands, he'll generally use a swan's-neck mechanism for this task. The fine adjustment, also known as fine regulation, ensures that the watch will keep time with an extraordinarily high degree of accuracy. Throughout the long history of watchmaking, countless fine-regulation methods have been developed. The ones commonly in use today involve changing either the active length of the hairspring or the moment of inertia of the balance.

The first system is more common because most watches are regulated by means of a hairspring key and index, a mechanism affixed to the balance cock. This device is used to make very slight adjustments in the active length of the hairspring, which changes the duration of each oscillation. The longer the hairspring, the faster the balance swings, and vice versa.

One end of the key is a little steel lever with two tiny brass pins attached. The pins extend into the hairspring and surround the outermost gyre of its spiral. At the other end is a ring, mounted on the balance cock, which can rotate around the balance's upper support. Turning the hairspring key changes the position of the two pins on its end, between which runs the outermost turn of the hairspring. So that this turning can occur in very small steps, as finely as possible, the so-called "pointer" is positioned opposite the hairspring key, to which it is attached: shifting the pointer's position in one direction or the other causes the watch to gain or



*A staking tool (potence in French) is used for counting (comptage) a hairspring so that it will match its balance perfectly.*



*At Montblanc, a hairspring's terminal curve is carefully bent by hand.*



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*Fine adjustment can involve changing the moment of inertia, here with the aid of eccentric Microstella screws in a Rolex Caliber 3135.*



*The other type of fine adjustment changes the active length of the hairspring, here with the aid of a swan's neck fine adjustment mechanism in a modified ETA/Unitas caliber.*



*From the balance, via the bridge, to the hairspring — several fine-adjustment systems can be used to produce a watch with an accurate rate.*

lose. To enable this pointer to be moved in extremely small and precisely controllable steps, it is sometimes equipped with an auxiliary construction. One such device is the swan's neck fine adjustment mechanism, which boasts several useful features. Its principal advantage is that it enables a watchmaker to regulate the watch in very small and (thanks to its setting screw) exactly measurable steps.

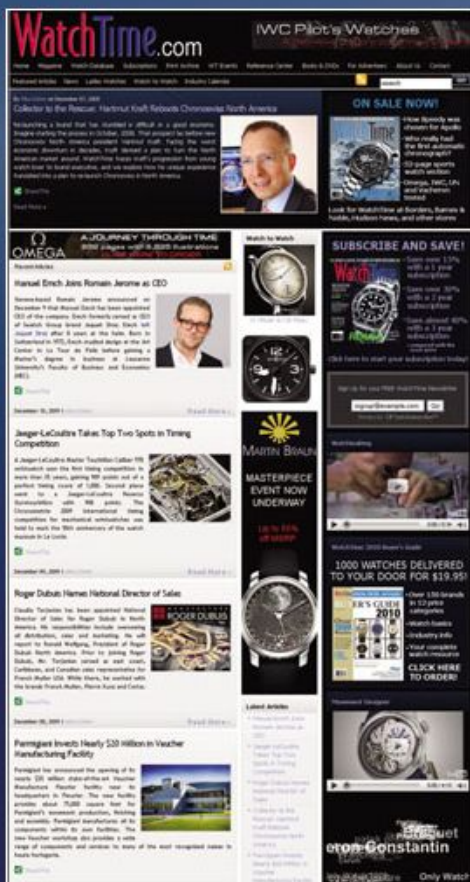
Auxiliary constructions with eccentrics or eccentric discs (adjustable discs eccentrically affixed to an arbor) function in a similar manner. Another specialty in the world of fine adjustment is the TrioVis system, which is used, for example, in Nomos's watches. A tiny bolt, which passes through the hairspring stud, plays an important role here. The bolt has a threaded portion that extends above the stud and a smooth, unthreaded, cylindrical portion inside the

stud. The upper, threaded portion meshes laterally in a saw-tooth arrangement, which is connected to the hairspring regulator, by means of which the hairspring's active length can be shortened or lengthened. When the bolt is turned, its threaded portion engages with the saw-tooth mechanism, which it causes to turn, in effect altering the active length of the hairspring.

The balance is the heart of the second system for rate regulation. When the balance's moment of inertia is changed, the watch will run faster or slower. Compensating screws, also known as regulating or adjusting screws, can be used for this purpose. Mounted along the rim of the balance wheel, they can be turned inward or outward, thus very slightly changing the outer diameter of the balance wheel. This changes the wheel's moment of inertia and causes the balance to oscillate slightly faster or slower. Having brought the oscillating system into its correct pace, the watchmaker has achieved his or her main objective: a watch that keeps time with the utmost precision. ○



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# TOOL OF HARD KNOCKS

*A close look at Tutima's Grand  
Classic Black sport watch, which boasts  
an extra-hardened, scratch-resistant case*

BY ALEXANDER KRUPP

PHOTO BY NIK SCHÖLZEL

Tutima's Grand Classic collection recalls the sport watches the company produced in the 1930s. These watches' characteristics include fluted, rotating bezels with red reference markers, clearly designed dials and spade-shaped hands. This year, the brand — founded in 1927 — introduced the historically inspired Grand Classic Black models, a dynamic line of sport watches with a black coating on their cases. The coating process is technically complex. Instead of applying a conventional PVD coating to the cases, Tutima decided to significantly harden their





#### Pros

- + Easy to operate
- + Scratch-resistant case
- + Attractive, sporty design

#### Cons

- No-frills movement
- Loose bezel turns unexpectedly



## SPECS

### TUTIMA GRAND CLASSIC BLACK

**Manufacturer:** Tutima Uhrenfabrik GmbH, Trendelbuscher Weg 16-18, D-27777, Ganderkesee, Germany

**Reference number:** 628-11

**Functions:** Hours, minutes, seconds; day and date with quick adjustment; hack mechanism

**Movement:** ETA 2836 "Elaboré," automatic; 28,800 vph; 25 jewels; fine regulator with eccentric; Etachoc shock absorber; power reserve = 38 h; diameter = 25.6 mm; height = 5 mm

**Case:** Hardened stainless steel with special PVD coating, curved sapphire crystal, fully threaded caseback with sapphire window, water-resistant to 100 meters

**Strap and clasp:** Calfskin strap with pronged buckle made of hardened steel and special PVD coating

**Rate results:** (deviation in seconds per 24 hours)

Dial up	+5
Dial down	+1
Crown up	-1
Crown down	+3
Crown left	-6
Crown right	+6
Greatest deviation:	12
Average deviation:	+1.3
Average amplitude:	
flat positions	286°
hanging positions	270°

**Dimensions:** Diameter = 43 mm, height = 12.5 mm, weight = 89 g

**Variations:** With black, stainless-steel bracelet (\$2,300); Grand Classic Black Chronograph (\$3,500 on strap, \$4,100 on bracelet)

**Price:** \$1,700

surfaces first, as another German brand, Frankfurt-based Sinn, did several years ago.

Tutima hardens the steel case to a level of 1,200 Vickers and then adds a special PVD coating with a hardness of 2,000 Vickers to achieve the approximate scratch-resistance of a sapphire crystal. It then hardens the steel base material (initially, only around 200 Vickers) to prevent it from buckling under stress, which would cause the coating to scratch or crack.

True to Tutima's word, neither the hardened case nor the pronged buckle of the Grand Classic sport watch showed any scratches after extended wear—even after some intense encounters with hard objects from daily life, such as table corners, radiators, and pots and pans.

The stainless-steel case appears to be rather roughly finished along the lugs, but it is otherwise well outfitted with two sapphire crystals, a fully threaded caseback and a screw-down crown. The smoothly rotating bezel, however, is a bit too loose: it moves at the slightest touch, making it useless for measuring elapsed time or for a countdown.

Every other feature of the watch is virtually perfect. Operation is easy thanks to the generously sized screw-down crown, and legibility is exceptional in both daylight and darkness. There is, however, a risk of inadvertently adjusting the date instead of the day, or vice versa, and then having to run through the entire cycle again to fix it. This relatively small defect is overcome by a quick adjustment for both displays as well as a dual-language day disk, which allows the wearer to choose between English and German.

Wearing comfort is also exceptional. The flat case and leather strap with pronged buckle fit comfortably around the wrist. The strap is sturdy but still supple, and has hardened rivets, faultless seams and perfectly varnished cut edges.

Its water-resistance is superior, as proven by its exposure to several heavy downpours during the wearing test. A moving roller on the buckle makes it easier to thread and adjust the thick strap, but with this level of attention to detail one would expect a turned prong rather than the less sturdy, bent type.

A bit more care and attention would have also benefitted the movement. Tutima uses an ETA 2836, which does not have a Glucydur balance; it also has no decorative finishes except on the rotor. This makes it easy to discern the Tutima "T" and the brand's founding year, "1927," which are printed on the sapphire caseback of every Grand Classic model. And even though the movement does not provide the best base values, with a large positional deviation of 12 seconds, the watch still manages a very good average rate of +1.3 seconds per day. This is taking into account the considerable rate drop in the "crown left" position. The actual wearing test showed a gain of between one and three seconds, depending on how the watch was placed on the nightstand for the evening.

A price of \$1,700 for this nicely finished and distinctively designed sport watch makes it easy to overlook the movement's lack of decorations and somewhat irregular rate. Overall, the striking design and numerous quality features, from the case to the clasp, make this watch worthy of praise. ○

## SCORES

### TUTIMA GRAND CLASSIC BLACK

<b>Strap and clasp (max. 10 points):</b>	<b>8</b>
<b>Operation (5):</b>	<b>4</b>
<b>Case (10):</b>	<b>8</b>
<b>Design (15):</b>	<b>13</b>
<b>Legibility (5):</b>	<b>5</b>
<b>Wearing comfort (10):</b>	<b>9</b>
<b>Movement (20):</b>	<b>11</b>
<b>Rate results (10):</b>	<b>7</b>
<b>Overall value (15):</b>	<b>13</b>
<b>TOTAL:</b>	<b>78 points</b>



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### Pros

- + Very easy-to-read dial
- + Good craftsmanship
- + Attractive design

### Cons

- Date display changes slowly
- Water-resistant to only 60 m





# BRINE TIME

*Can IWC's new sailing watch, the Portuguese Yacht Club Chronograph, survive the perfect storm of a WatchTime test?*



BY JENS KOCH

PHOTOS BY OK-PHOTOGRAPHY

In 1967, IWC launched a watch that would become one of the brand's biggest success stories: a sporty, three-handed automatic called the Yacht Club. Though little remembered today, the Yacht Club was IWC's most popular model of the late 1960s and 1970s.

A year ago, IWC resurrected the Yacht Club in a new chronograph version and incorporated it into its Portuguese collection. Like other Portuguese models, the new Yacht Club has a big case (45.5 millimeters), Arabic numerals and a railroad-track-style minutes ring. Unlike other Portuguese watches, it has a gaggle of sailing-themed features: push-pieces shaped like bollards, a seafaring red-and-white color scheme and luminous hands and markers that can be read even in a thick, offshore fog. It immediately became the sportiest Portuguese model.

The case deserves much praise for its fine craftsmanship; its unusual bezel, which widens in a smooth slope from bottom to top; and its beautifully contrasting, polished and satin-finished surfaces.

The dial is very large, more than 40 millimeters wide, and is quite attractive and easy to read. Because it is black, it provides a high-contrast background for the silver-colored hour and minute hands. For greater legibility in the dark, 12 o'clock is marked with double markers. The only fly in the ointment, a tiny one, is the date display, which sits in an awkward position abutting the numeral "3." Furthermore, it switches from one day to the next very sluggishly, beginning the shift an hour before midnight.

## SPECS

### IWC PORTUGUESE YACHT CLUB CHRONOGRAPH

**Manufacturer:** IWC Schaffhausen, Baumgartenstrasse 15, CH-8201 Schaffhausen, Switzerland

**Reference number:** IW390204

**Functions:** Hours, minutes, seconds, date, flyback chronograph, 60-minute and 12-hour counters

**Movement:** Caliber 89360, 28,800 vph; 40 jewels; Incabloc shock absorption; Glucydur balance; fine adjustment via screws on the balance; diameter = 30 mm, height = 7.5 mm, 68-hour power reserve

**Case:** Stainless steel, curved sapphire crystal is nonreflective on both sides, fully threaded back with sapphire window, screw-down crown, water-resistant to 60 meters

**Strap and clasp:** Rubber strap, stainless-steel folding clasp

#### Rate results:

(Deviations in seconds per 24 hours, without/with chronograph switched on)

Dial up	+2	+2
Dial down	-2	0
Crown up	-2	-2
Crown down	-1	+1
Crown left	0	0
Crown right	-2	-2
Greatest deviation of rate:	4	4
Average deviation:	-0.8	-0.3

#### Mean amplitude:

Flat positions	282°	247°
Hanging positions	248°	210°

**Dimensions:** Diameter = 45.4 mm, height = 14.5 mm, weight = 137 grams

**Variations:** With silver-white dial; in rose gold (\$23,100)

**Price:** \$12,600



*The Yacht Club's beautiful  
folding clasp bears IWC's  
"Probus Scafusia" seal.*





*The flexible rotor bridge, which absorbs shocks, is visible through the caseback.*

The Yacht Club is the first Portuguese model to be fitted with Caliber 89360, which IWC developed in-house and launched in 2007. This caliber offers one very appealing benefit: its elapsed-hours and elapsed-minutes counters are combined in a single subdial in the upper half of the dial. They can be read easily at a glance, as if you're reading the time in a second time zone. This feature is especially helpful in measuring long periods of time.

IWC's engineers developed a new, double-ratchet winding system for this caliber. Like the winding system used in some other IWC watches, it was inspired by the device that Albert Pellaton, IWC's former technical director, invented in the 1940s. Unlike that system, though, the one in Caliber 89360 has two double clicks rather than one, so twice as many ratchets pull and push to tighten the mainspring. And they're no longer controlled by a cam plate, but — as in an automobile engine — by a crankshaft. The ratchets are arranged so that they wind the mainspring even when the rotor moves only slightly. The winding mechanism is 30 percent more efficient than its forerunner,

## SCORES

### IWC PORTUGUESE YACHT CLUB CHRONOGRAPH

**Strap and clasp (max. 10 points):** Rubber strap with cleanly crafted, secure, easy-to-operate, beautifully designed folding clasp **8**

**Operation (5):** Easy-to-grasp crown; a stop-seconds function and rapid reset for the date display; somewhat stiff push-pieces **4**

**Case (10):** Good craftsmanship, appealing juxtaposition of satin-finished and polished surfaces, an attractively curved crown protector; the water-resistance level could be higher. **8**

**Design (15):** The maritime design incorporates many elements of the attractive and elegant Portuguese collection. **14**

**Legibility (5):** The time can be read at a glance thanks to luminous, high-contrast hands and a very large dial; the chronograph's elapsed-time counters are also easy to read. **4**

**Wearing comfort (10):** Despite its large size, this watch fits surprisingly well, due largely to its flexible strap, which curves downward at the lugs. **8**

**Movement (20):** Complex construction with flyback function, shudder-free fine adjustment, and shock-absorbent rotor bridge, but the decoration is no more than standard for this class of watch. **18**

**Rate results (10):** The amplitude was too low when the chronograph was switched on, but except for this peccadillo, the rate results were good and the average deviation was very nearly zero seconds. **8**

**Overall value (15):** The price is high, but the watch offers a better cost-benefit ratio than some other IWC models. **11**

**TOTAL:** **83 POINTS**



enabling its designers to make the rotor lighter, thereby reducing wear and tear on the movement. Caliber 89360's power reserve is three days.

Another special detail is the flexible rotor bridge, which absorbs shocks. The movement has a screwed balance for fine adjustment, a sign of high quality. Arguably the brightest highlight of this caliber is the elegant column wheel that controls the chronograph's functions. The elapsed-minutes counter is designed so that rather than jumping to the next full minute, it moves continuously.

The watch has a flyback function: with a single push of the push-piece, you can make the chrono hands return to zero and instantly start timing another interval.

For the chronograph's coupling, IWC uses an oscillating pinion similar to the one in the ETA 7750. This device was developed to simplify chronographs, but has proven to be a genuine improvement, not merely a simplification. IWC equips the chronograph center wheel with 240 teeth, which have a special profile to minimize the jump that occurs when the elapsed-seconds hand begins to move.

The movement also has a stop-seconds function and a quick-adjustment system for the date. These features, combined with the large, easy-to-grip crown, make the watch quite easy to set. The push-pieces are rather stiff, but this is to be expected with a column-wheel chronograph.

The neatly crafted decorations include pretty engraved patterns, polished screw heads, and a circular-grained base plate. Much of the movement is visible, thanks to the skeletonized rotor. Alas, the edges of the plates are neither beveled nor polished, and the levers, made of polished sheet metal, aren't quite as handsome as they would be if they had been milled.

The rate results were quite impressive. The watch we tested lost only one second per day on the wrist. The timing-machine results were similar: the average deviation for all positions was just  $-0.8$  seconds with the chronograph switched off and  $-0.3$  seconds with it on. In either mode, the greatest deviation among the various positions was four seconds. The balance's amplitude declined significantly only once: when the chronograph was running and the watch was held in a hanging position, it fell to a weak 210 degrees.

The Yacht Club is one of the few very big watches that can be worn comfortably by someone with an average-sized wrist. The end of its rubber strap will reach almost all the way around to the opposite lug, but the watch nonetheless fits snugly. The texture of the inside of the strap helps minimize sweating. The outer surface of the strap boasts attractive, fabric-like embossing. The fact that the strap is made of rubber, not leather, does not detract from the watch's high-quality appearance. The clasp is well-crafted and sturdy. It folds closed securely and opens easily. Like the case, it boasts a combination of satin-finished and polished surfaces.

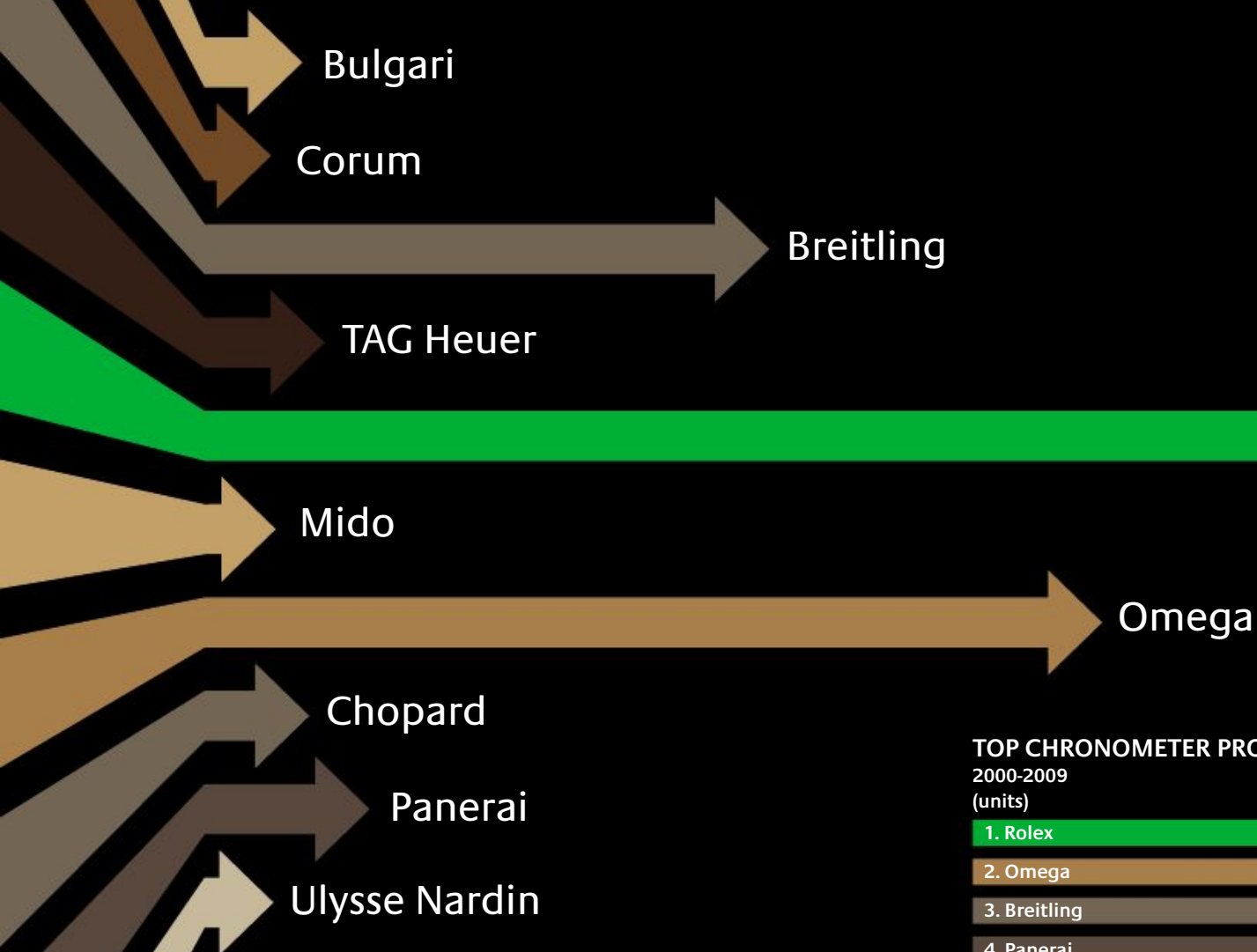
One of the few complaints we have about the watch is with its relatively low level of water-resistance, just 60 meters, which is not enough for serious water sports. The original Yacht Club was water-resistant to 100 meters.

With a retail price of \$12,600, this chronograph is priced higher than some of its competitors. Then again, the Portuguese Automatic, at \$10,900, doesn't cost much less. The Yacht Club Chronograph's cost-benefit ratio is better than that of some other IWC models. The watch's sportily elegant styling, admirable rate results, high level of craftsmanship and ease of use combine to make it a welcome passenger on any voyage. ○



*Variations of the Yacht Club with silver-white dial and with rose-gold case*

# ROLEX



TOP CHRONOMETER PRODUCERS  
2000-2009  
(units)

1. Rolex	7,080,518
2. Omega	2,337,694
3. Breitling	1,593,597
4. Panerai	354,462
5. TAG Heuer	216,163
6. Chopard	160,867
7. Bulgari	99,494
8. Ulysse Nardin	73,456
9. Mido	56,003
10. Corum	51,438

Source: COSC, WatchTime



# ROMPS

BY JOE THOMPSON

*Rolex produced 7.08 million chronometers in the last decade, 4.7 million more than its nearest competitor.*

## A DECADE OF CHRONOMETERS



Rolex

Watch enthusiasts know that when it comes to producing Swiss chronometers, there are the Big Three brands — Rolex, Omega and Breitling — and then there are all the rest.

Just how big the Big Three are in chronometer production becomes startlingly clear when you analyze Swiss chronometer output by brand over the past decade. Using official annual figures issued by Switzerland's COSC (Contrôle Officiel Suisse des Chronomètres), the official chronometer testing agency, *WatchTime* has compiled total chronometer production by brand for the 10-year period between 2000 and 2009. (A chronometer is a watch whose movement has met strict precision standards determined by a battery of tests performed by COSC. COSC issues a certificate for each movement indicating the test results that certify its accuracy.)

The data shows that Rolex is the undisputed and unchallenged king. COSC issued 7,080,518 chronometer certificates to Rolex during the decade. That's nearly 5 million more than the number two producer.

If Rolex is the chronometer king, Omega and Breitling are princes. The number of chronometer certificates issued to Omega over the decade was 2,337,694. Breitling's total was 1,593,597.

No other brand came close to the million-chronometer mark. Panerai ranked number four with a decade total of 354,462. TAG Heuer came in fifth with a total of 216,163. Rounding out the top 10 were Chopard (160,867 certificates), Bulgari (99,494), Ulysse Nardin (73,456), Mido (56,003) and Corum (51,435). All other brands fell below the 50,000 mark.

Rolex's dominance in the chronometer category stems from a decades-long strategy of identifying its watches with

the COSC's "certified chronometer" designation. Nearly all Rolex brand watches carry the designation. Calculated on a per diem basis, Rolex produced nearly 2,000 chronometers a day over the last decade (1,940). In contrast, Omega produced 640 per day, Breitling 437, and Panerai 97.

One big surprise is the presence of Mido (#9) on the decade's Top 10 list (see table). It's doubtful that even the most knowledgeable watch aficionado would have picked Mido as the number two chronometer-maker in the Swatch Group after Omega. Mido beat out its Swatch Group sister Tissot, which ranked #13. The second top chronometer producer in the Richemont Group after Panerai was Baume & Mercier, which ranked #14 on the decade list (27,377 certificates). The number two chronometer producer in the LVMH Group after TAG Heuer was Zenith, which came in at #15 (26,801). ○

# Family Ties

*An inside look at the Sandoz Family Foundation's MHF group, the corps of companies that work together to produce Parmigiani watches.*

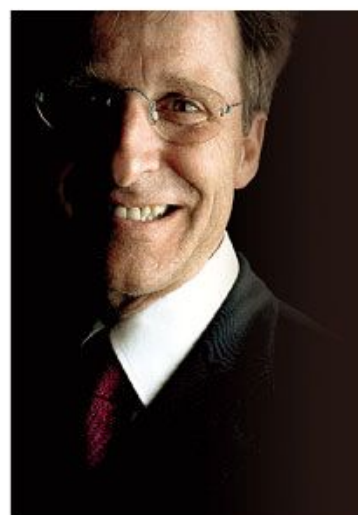
BY ALEXANDER KRUPP

It is easy to get lost in the typically Swiss web of shareholdings and group affiliations that surrounds many watch manufacturers. At Parmigiani, however, everything is basically very simple: the Parmigiani Fleurier SA brand and nearly all its suppliers belong to Switzerland's Sandoz Family Foundation.

The Foundation was established in 1964 by Swiss sculptor and painter Edouard-Marcel Sandoz. He was the son of Edouard Constant Sandoz, founder of the pharmaceutical giant Sandoz SA, now known as Novartis. With holdings in a variety of sectors, including agribusiness, telecommunications and the hotel industry in addition to the pharmaceutical business, its stated goal is to encourage Swiss entrepreneurship and innovation as well as to support culture and the arts.

Its watch division, which supplies parts to Parmigiani as well as to other watch brands, is known as the Manufacture Horlogères de la Fondation (MHF). It consists of various specialized suppliers, all owned by Sandoz: Les Artisans Boîtiers SA, which

*Below: Michel Parmigiani;  
right: the Parmigiani brand's  
headquarters in Fleurier*











*Elwin SA uses numerous CNC machines to produce small parts such as screws for Parmigiani watches.*

makes cases; Quadrance et Habillage SA, dials; and Vaucher Manufacture Fleurier SA, movements. Even the components for the movements come from affiliated companies: Elwin SA produces screws, wheels and pinions; Atokalpa SA delivers barrels, escapements and other items.

**THE EASIEST WAY** to understand how the MHF works is to follow the path that ultimately leads to a completed Parmigiani watch. The first drafts for a new timepiece are created at the brand's headquarters in a historic building in the center of the town of Fleurier. Michel Parmigiani, founder of the watch brand, invariably participates in developing the initial sketches. In 1976, at the age of 26, he chose Fleurier to be the site of his first atelier, where he worked as a freelance restorer and later developed watches on commission from third parties.

**THE SANDOZ FOUNDATION  
AND MICHEL PARMIGIANI  
CO-FOUNDED THE PARMIGIANI  
WATCH BRAND IN 1996. SANDOZ  
ESTABLISHED THE MHF, ITS  
WATCHMAKING HUB, IN 2000.**

Neither Michel Parmigiani nor the brand's managing director, Jean-Marc Jacot, keeps an office here. Both men are so busy representing the brand around the world that it would be impossible for them to regularly participate in the company's day-to-day affairs. The fruits of their efforts are evident in the impressive market presence of their niche brand: Parmigiani watches are currently sold in 70 countries.

In 1996, the Sandoz Family Foundation acquired Michel Parmigiani's restoration business and launched the Parmigiani watch brand. With the foundation as chief shareholder, Michel Parmigiani introduced his first wristwatch movement in 1998: Caliber 110, a hand-wound movement with an eight-day power reserve. The Sandoz Foundation took over most of the suppliers mentioned above in 2000 and 2001 (it established the dial manufacturer itself in 2006), thus making it possible to independently develop and produce watches. Parmigiani's second *manufacture* movement, the automatic Caliber 331, came out in 2001. One year later, it was followed by another self-winding movement, Caliber 333, which was based on the 331 but which also contained a retrograde perpetual calendar. The first edition of the now-famous Bugatti Type 370, with a vertically positioned mechanical movement, appeared in 2004. And the brand's first in-house chronograph, Caliber PF334, debuted in 2007.

Today a total of 10 *manufacture* calibers tick inside Parmigiani watches, of which approximately 5,000 pieces are made each year. Long-term plans call for annual production to increase to about 10,000 watches. Although Parmigiani has acquired enough real estate in Fleurier to increase its production significantly, it doesn't intend to do so. One reason is the MHF group's commitments to other brands like Hermès, the luxury-goods giant that bought a 25-percent share in Vaucher Manufacture Fleurier in 2006. Except for Hermès's share in the *manufacture* and Michel Parmigiani's small stake in the Parmigiani

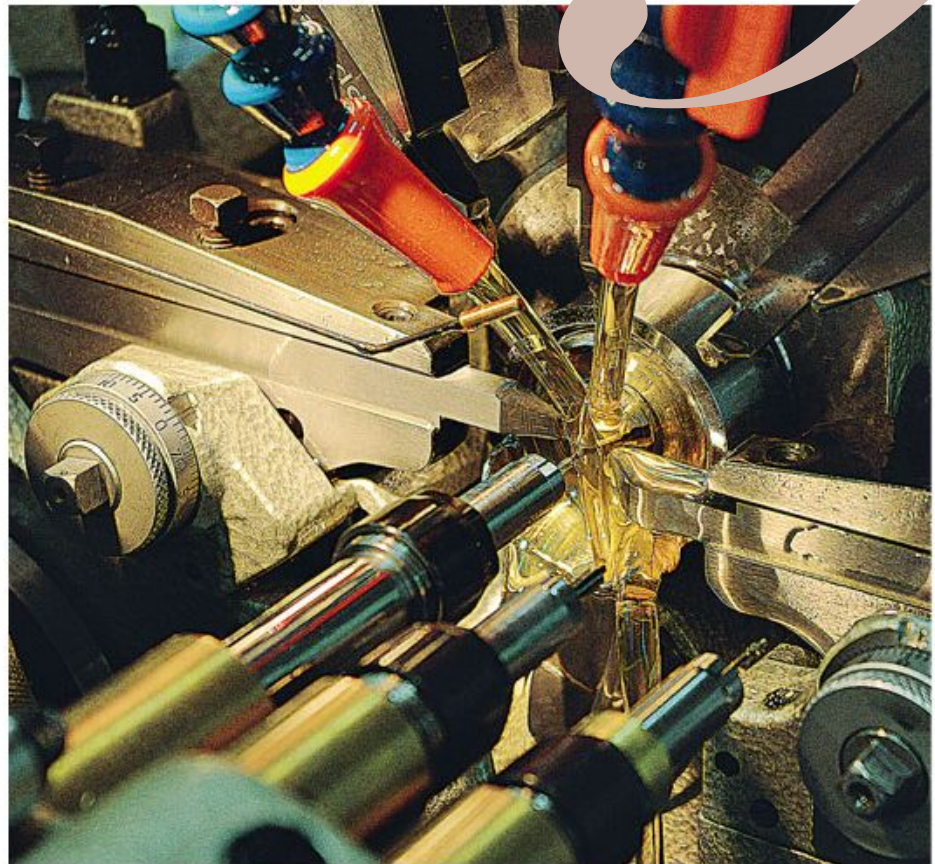


*Modern CNC machines produce movements  
at Vaucher Manufacture Fleurier.*

watch brand, all firms in the MHF group are completely owned by the Sandoz Family Foundation.

**BUT EXACTLY HOW** does a Parmigiani watch come to be? The smallest components (like screws, wheels and pinions) come from Elwin, which recently moved into a factory in Moutier that is three times larger than its previous space, with approximately 40 CNC processing centers. (Plans call for that number to eventually reach 50.) Elwin is also active in machine development, equipped to meet demands for parts from Parmigiani and other customers. For example, Elwin recently established a CNC center that can cut uncommonly sturdy threads on minuscule screws.

More complex components, such as wheels, arbors and barrels, come from Atokalpa. Its specialties range from stamping flat parts, to cutting teeth on gears and lathe-turning barrel drums, to hardening and embellishing surfaces. Based in the town of Alle and thus located at the epicenter of the Swiss precision-



*The Sandoz group acquired Vaucher in 2003;  
Hermès bought a 25 percent share in 2006.*





# Parmigiani

TODAY, VAUCHER MANUFACTURE FLEURIER NEEDS ONLY 18 MONTHS TO BRING A NEW CALIBER FROM DESIGN TO SERIAL PRODUCTION; IT USED TO TAKE THREE YEARS.

Parmigiani's Bugatti Atalante flyback chronograph, with a caliber made at Vaucher Manufacture Fleurier



turning industry, the firm has also made complete escapement assemblies since 2005. Atokalpa produces the escapements that are the heart of every mechanical watch, and which are made from approximately 20 components. These include the pallets, the escape wheel, the balance and the spirally coiled balance spring, a component that only a few highly specialized manufacturers are capable of producing. Balance springs are drawn from round wires with the aid of a diamond drawing die until the wire is thinner than a human hair. Rollers then transform this wire into a flattened strip. During the subsequent thermal treatment, the balance spring is wrapped into its final form and stabilized to hold its spiral shape.

**FURNISHED WITH** components made by companies within the group, Vaucher Manufacture Fleurier can assemble a wide variety of calibers. The new building on the outskirts of Fleurier opened its doors in 2009: with an area of 6,600 square meters, it provides workspace for 180 people, who annually produce approximately 10,000 movements. Yes, the math is correct: the figure is twice the annual number of Parmigiani watches. The other 5,000 movements — most of which are customized for individual clients — are sent to Hermès, Corum (the well-known stalk-like movement for its Golden Bridge model) and Richard Mille. When the Parmigiani brand reaches its planned goal of producing 10,000 watches each year, Vaucher will have grown so that it will be able to provide as many movements to third-party customers as it does for Parmigiani.

The design engineering and prototype construction for all new calibers take place here. Today, the development of a new movement to the point where it's ready for serial production typically requires about 18 months. Only about 10 years ago, twice that amount of time was necessary because of the *manufacture's* smaller capacity.

**QUADRANCE ET HABILLAGE**, the sole supplier in the MHF that the Sandoz Foundation established rather than acquired, is located opposite Parmigiani's headquarters in Fleurier. For five years it has produced high-quality watch dials for Parmigiani and, in nearly equal numbers, for other well-known brands. Depending on the style of dial, stamped components are embellished with guilloché and then lacquered or galvanized to give them the desired color. Specialists then press or glue on the indices and/or hour numerals and fit the hands.

The majority of the dials are made of brass, the material most often used in traditional watchmaking. A small number are made of silver, and dials for watches that retail for around \$100,000 or more are generally made of gold.

After the dial and movement are complete, the only missing element is the case. These are made at Les Artisans Boîtiers in La Chaux-de-Fonds. The firm has operated under this name only since 2009; before that, it was known in the watch industry by the name of its founder, Bruno Affolter, who has since left the busi-

Left and above left: designing and assembling dials for Parmigiani watches at Quadrance et Habillage



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*Left: the Parmigiani Bugatti Type 370, with its complex case. Middle and right: watchmakers at work on various components of the cases and movements in the MHF's specialized ateliers*

ness. The company, which specializes in making complex cases for Parmigiani and other brands, uses computer-assisted techniques to design and mill watch cases. It also equips the cases with sapphire crystals, polishes or satin-finishes them, sets them with precious stones (if desired) and tests each one to ensure its water-resistance. The materials used to make cases include steel, gold, platinum, titanium and the rarely used precious metal palladium.

Even especially elegant watches with additional apertures in their cases (for complications such as minute repeaters, or, in the case of the Bugatti Type 370, numerous sapphire windows) don't leave the production site until they've been thoroughly tested to guarantee their ability to resist penetration by water. The assemblers of the Bugatti watch cases achieve the desired degree of protection by gluing the crystals with an adhesive that hardens under ultraviolet light.

**THE FINAL STEP**, of course, is assembling the watches. The watchmakers who work in a small complications atelier opposite the brand's headquarters are especially passionate about their craft. They manually fit the tourbillons, minute repeaters and perpetual calendars, assembling them from their component parts by hand to produce complete watches.

Often they do special modifications of timepieces, on commission from well-heeled customers who want their watches to be one-of-a-kind. Some of these modifications include specially embellished dials, enamel paintings, engravings and gemstone settings.

A watchmaker typically invests 40 hours, or one full workweek, in a single watch. It's a matter of honor for him or

her not to surrender the watch into anyone else's hands until it has been completed. Such possessiveness also extends to repairs. The watchmaker who made the watch — and no one else — will be entrusted with all subsequent servicing jobs on it.

In the same building is a small department — the restorations atelier — that has nothing to do with making Parmigiani watches, but which is nonetheless an important part of the brand's heritage. Working meticulously, and often in minuscule dimensions, specialists there restore old pocketwatches, table clocks and whimsical timepieces, as well as vintage



*Parmigiani also restores automata, such as this Fabergé peacock from 1908.*





*Les Artisans Boîtiers SA makes watch cases out of various types of materials.*

automata and music boxes. No matter how harshly time has treated these mechanisms, the team of restorers — interestingly, all of them rather young — strive to repair and preserve every item entrusted to their skilled hands and inventive minds. For example, if the tip of a watch's hand has been lost, they will solder a new tip onto the remainder of the old hand rather than replace it entirely.

Repairing a complicated pocketwatch can take as many as 350 man-hours of labor and more than 2,000 hours may be necessary to refurbish a lavish table clock. One of the pieces the atelier recently restored is a Fabergé Easter egg with a peacock automaton from the Sandoz family's collection: made in 1908, it was restored to its original working condition only last year, slightly more than a century later.

The watchmakers at the Parmigiani restoration atelier also perform work for other clients. For example, the Patek Philippe Museum in Geneva sends all its exhibited items to Parmigiani for restoration, except those actually made by Patek Philippe. The International Watch Museum in La Chaux-de-Fonds and other museums also regularly commission Parmigiani's experts for repairs and restorations. Parmigiani's restorers have all completed an additional two years of

study in their field after a basic watch-making education.

All told, the MHF group encompasses 50 different *métiers*, which are performed by a total of 450 employees: 80 work for the Parmigiani brand itself; the remaining 370 are employed by the *manufacture* and the supplier firms. ○



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# WAKE-UP CALLER

BY ALEXANDER KRUPP  
PHOTOS BY NIK SCHÖLZEL

If you love elegant watches, you're sure to be drawn to the outer appearance of Jaeger-LeCoultre's Master Memovox, which debuted in January 2010. Its immaculately made, rose-gold case harmonizes with a silver-colored dial and a dark brown alligator-skin strap, which is secured to the wrist by a flat, double-folding clasp that accentuates the sleek classicism of the entire ensemble.

The dial's outstanding craftsmanship is evident in its brushed surface, paper-thin printed lettering and faceted hour indices. The primary contributors to the case's impressive appearance are a stepped bezel, which four screws hold in place from below, a perfectly polished middle piece with faceted lugs and an elaborately engraved back. We couldn't

*The Jaeger-LeCoultre Master Memovox was designed to keep time on the wrist and double as an alarm clock on the nightstand. We see how the newest version of the watch performs at both tasks.*





*The sounding element of the Master Memovox is incorporated into the watch's gold caseback, which covers automatic Caliber 956.*



### Pros

- + Beautiful, classical design
- + Good craftsmanship
- + Well-constructed *manufacture* movement
- + Cleverly designed alarm function

### Cons

- Sharp-edged clasp
- Rate strays into the minus column
- Deployant clasp not ideal for alarm function



THE HISTORY OF MANUFACTURE  
CALIBER 956 CAN BE TRACED TO  
1949. THE FIRST VERSION WAS THE  
LOUDLY RINGING, MANUAL-  
WOUND CALIBER 489.



The watch uses a luminous  
arrowhead on a rotatable disk  
to indicate the alarm time.





help noticing that the engravings on the caseback, which surround the raised-relief logo, are positioned irregularly so that one-third of its periphery remains clean.

But it's really what's inside the Master Memovox that makes it special. Under the massive caseback ticks one of the more than 1,000 mechanical calibers that Jaeger-LeCoultre has developed in the course of its 177-year history — and one of about 40 that are still in use. Automatic Caliber 956 was introduced two years ago to power the Memovox Polaris alarm wristwatch for divers.

Its ancestry can be traced to handwound Caliber 489, developed in 1949. This movement was used inside the first Memovox, which was presented at the Basel watch fair in 1951. That watch's special feature was its alarm, which rang

significantly louder when it was lying flat on a hard surface, such as the wooden top of a bedside table, than when it was on the wearer's wrist. This meant the watch could be used as an effective substitute for a tabletop alarm clock. Jaeger-LeCoultre has refined this useful attribute, which many other wristwatch alarms lacked, over the years, and the watch has also evolved, with the present model being the most recent.

If the Master Memovox of 2010 is left lying flat against a hard surface in the evening, it will ring loudly enough the next morning to rouse even the deepest sleeper. The alarm tone is noticeably quieter if it rings when the watch is on the wrist. This means that if you want to use the watch in the office to remind you of an appointment, you needn't worry that its chiming will bother your colleagues.

## SPECS

### JAEGER-LECOULTRE MASTER MEMOVOX

**Manufacturer:** Manufacture Jaeger-LeCoultre, Rue de la Golisse 8, CH-1347, Le Sentier, Switzerland

**Reference number:** Q1412430

**Functions:** Hours, minutes, seconds; date display; alarm; stop-seconds function

**Movement:** Manufacture Caliber 956, automatic; 28,800 vph; 23 jewels; fine adjustment via weight screws on the Glucydur balance; Kif shock absorbers; 45-hour power reserve; diameter = 30 mm; height = 7.5 mm

**Case:** Rose gold; curved, sapphire crystal with no nonreflective treatment; caseback held in place by four screws; water-resistant to 50 meters

**Strap and clasp:** Cut alligator-leather strap with double-folding, rose-gold clasp

#### Rate results:

(Deviations in seconds per 24 hours)

Dial up	- 4
Dial down	- 3
Crown up	- 6
Crown down	+ 2
Crown left	0
Crown right	- 3
Greatest deviation of rate	8
Average deviation	- 2.3
Mean amplitude:	
Flat positions	270°
Hanging positions	231°

**Dimensions:** Diameter = 40 mm, height = 14 mm, weight = 140 grams

**Variations:** With stainless-steel case (\$9,600); "International" version with manually adjustable world-time disk (250 pieces in rose gold, \$22,150; 750 pieces in stainless steel, \$11,350)

**Price:** \$20,350

*Jaeger-LeCoultre Master Memovox*

Also, you won't have to listen to the metallic rasping and tinny grating characteristic of many alarm watches. The Master Memovox doesn't make noise: it generates mellifluous sounds. Its tone is similar to the ringing of an old-fashioned telephone, but instead of sounding in intervals, it rings continuously for 18 seconds — about the same length of time as the alarms in other well-known alarm watches. The deviation between the actual alarm time and the set alarm time also remains within the standard limit of one to two minutes.

Some other alarm watches, including other models from Jaeger-LeCoultre, offer alarm mechanisms that can be set with greater accuracy. The alarms on many watches can be set in 12-minute, 10-minute, or even six- or five-minute increments, but the Master Memovox is calibrated only with quarter-hour indices. This means that the wearer has to be satisfied with setting the wake-up time to a tolerance of 7.5 minutes. This level of precision is high enough for a morning wake-up call, but if the wearer were using his watch to remind him of an appointment during the business day, he'd be advised to set the alarm to ring a few minutes early.

The alarm-time scale, which surrounds a rotatable disk in the center of the dial, does not intrude upon the dial's harmonious appearance. On its periphery is a luminous arrowhead that can be positioned to point to the desired stroke along the alarm-time scale. The current time is always clearly discernible, and the date display, inside a window in the wreath of hour indices around the periphery of the dial, is also perfectly legible. However, to read the time in the dark, the wearer must hold the narrow strips of luminous material on the hands up to a light source shortly beforehand; otherwise the luminescence is limited to the additional index dots and the alarm-time arrow.

**JAEGER-LECOULTRE** has offered a self-winding alarm movement since 1956. Designated as Caliber 815, it was equipped with a unidirectional, hammer-type winding mechanism. The modern

version uses a bidirectional rotor, but, like its predecessor, it supplies energy only to the main movement. The separate barrel to power the alarm mechanism must be manually wound using an additional crown at the 2 o'clock position. After winding, the wearer can pull this crown out and then turn it in one direction to set the alarm time or in the other direction to set the date. To avoid confusion, the crown is marked with the letter "D" (for "date") and an arrow to indicate the correct direction of rotation. This solution is simple and very helpful: after all, a little turn in the wrong direction could set the alarm time inadvertently or, even worse, jumble the date display, which would have to be advanced through an entire cycle until it was again correct.

The quick-adjustment mechanism for the date display clicks very exactly into place. This user-friendly feature makes up for the slow-moving date disk, which remains slanted inside its window for two hours each night. The main crown at 4 o'clock is used to manually wind the main movement and to set the hour and minute hands.

Operating the Master Memovox is very easy, but pulling out the two crowns is a bit difficult. Their grooved flanks come very close to the rim of the case, so fingernails are needed to coax each crown away from the rim.

The movement is a typical Jaeger-LeCoultre creation: it's modern, functional, cleverly designed and appealingly decorated. Among other contemporary features, we noted the balance's frequen-

*The watch has a thick, elaborately engraved caseback and a deployant clasp.*





# THE MASTER MEMOVOX DOESN'T MAKE NOISE: IT GENERATES MEL-LIFLUOUS SOUNDS, IN TONES SIMILAR TO THE RINGING OF AN OLD-FASHIONED TELEPHONE.

cy of four hertz, the freely swinging balance spring, and the weight screws along the balance's rim. The bidirectional, ball-borne rotor is highly efficient. The highlight of the movement's construction is its placement of the sounding elements: the gong wraps once around the inside of the very heavy caseback. The alarm hammer strikes a pin that extends from the middle of the back into the depths of the movement. The bearing for the winding rotor has an aperture through which the pin is inserted, ensuring that the rotor doesn't interfere with the connection between the pin and the hammer.

The decorations on the movement, while attractive, fall short of the luxurious standards set by other Jaeger-LeCoultre movements, perhaps because they are hidden behind the massive, solid caseback — which maximizes the sound of the alarm — rather than on display in a sapphire window. The rotor features Geneva waves, gold-filled engravings and a very heavy oscillating weight made of rose gold adorned with a sunburst pattern. Blued screws contrast with Geneva waves in the bridge of the automatic winding mechanism: everything here is neatly crafted, as are the diverse patterns that are abraded onto the underlying components. However, the lower levels are merely bead-blasted and without further adornments, and the edges are neither beveled nor polished.

This degree of embellishment is sufficient for a robust caliber built for efficiency, but we were somewhat disappointed by the irregular rate results of this movement compared to those of other Jaeger-LeCoultre watches we've tested in the past. Our Witschi timing machine determined that the greatest deviation between two positions is a mediocre eight seconds, and some of the individual values strayed into the minus column: the tested model lost an average of 2.3 seconds per day. This value was confirmed in our wrist test.

As for wearing comfort, although the watch's massive, gold case contributes to its hefty weight of 140 grams, it fits snugly around the wrist. You may encounter minor problems when putting it on and taking it off because the gold, double-folding clasp has a few sharp edges and does not have push-pieces to open it. However, the lack of the push-pieces contributes to the clasp's slim, elegant look.

The various parts of the clasp are milled from solid gold and are, expectedly, quite sturdy, although they could have been a bit thicker at the joints so that the pins could have had a larger diameter. The pins snapped in a simulated test under the weight of a heavy book that was placed on top of the opened clasp. Of course, if the owner of this luxury watch treats it kindly, he shouldn't encounter any problems.

Nonetheless, a pronged buckle would have been a better choice for this alarm watch. After all, it should be placed flat on a bedside table in the evening so that it can ring at full volume the next morning. It rings much more quietly if it is lying on its side, as is usual for a timepiece with a folding clasp. Not many can be expected to go to the trouble, before drifting off to sleep, of removing the clasp's stirrup and pulling out the leather strap.

Notwithstanding the relative merits of folding clasps and pronged buckles, the Master Memovox is a luxury wrist-watch that should make its owner happy thanks to gorgeous design, good craftsmanship and excellent user-friendliness. And if the gold version, at \$20,350, is too expensive, there is also a steel model for \$9,600. ○

## SCORES

### JAEGER-LECOULTRE MASTER MEMOVOX

**Strap and clasp (max. 10 points):** The well-glued alligator-skin strap has neat machine stitching, properly lacquered edges, not-quite-perfect reptilian scales and a massive, double-folding clasp that's milled from solid gold but has no safety buttons. **8**

**Operation (5):** The two crowns can only be extracted by slipping a fingernail between the crown and the case, but otherwise it's simple and convenient to set the time, date and alarm time. **4**

**Case (10):** The nicely shaped bezel is held in place from below by four screws; the sculptural back is elaborately milled and also has four screws. **9**

**Design (15):** It would be difficult to imagine a more harmonious design for a classic watch with extra functions. **14**

**Legibility (5):** With the sole exception of the rather slim strokes on the alarm-time scale, everything is perfectly legible in daylight; in the dark, the indices gleam more brightly than the thin, luminous stripes on the hands. **4**

**Wearing comfort (10):** The double-folding clasp reduces the comfort only slightly, but makes it more difficult to put the watch on and take it off. **8**

**Movement (20):** The alarm mechanism and other technical details (ball-borne rotor, Glucydur balance, freely swinging balance spring) are impressive, but the date display advances very slowly. **17**

**Rate results (10):** Eight seconds' deviation among the various positions is a relatively high value and the overall rate strays into the minus column. **7**

**Overall value (15):** \$20,350 is a fair price for a complicated, well-crafted gold watch from a renowned *manufacture*. **12**

**TOTAL: 83 POINTS**



For *Felix Baumgartner*,  
co-founder and move-  
ment designer for the  
avant-garde watch brand  
Urwerk, raising eyebrows  
is its own reward.

# FUTURE- SHOCK

BY NORMA BUCHANAN





B

efore he could even tell time, Felix Baumgartner, co-founder of Geneva-based Urwerk, was helping to repair clocks. Starting at age three, he would spend much of his day in his father's clock-restoration atelier in Schaffhausen, watching him work and, when so assigned, cleaning steel components and performing other apprentice-type tasks.

Baumgartner's father, Gerhard Baumgartner, was, and still is, a prominent restorer of and dealer in antique clocks (his firm is now based in Brunnen, Switzerland). His workshop, which adjoined his son's bedroom, was filled with clocks made by a true horological pantheon: Abraham-Louis Breguet, Ferdinand Berthoud, Thomas Tompion, and many others. A portrait of the great Briton Tompion watched over little Baumgartner as he went about his chores and listened to the elder Baumgartner's tales of long-dead watchmakers (Antide Janvier was one of his favorite subjects), Baumgartner recalls. "My father always had a big poster of Thomas Tompion in his atelier instead of Jesus or something," Baumgartner, now 35, says. "This was the religion that was taught me."

In the decades since then, Baumgartner, who designs Urwerk's movements, and Urwerk co-founder Martin Frei, who designs the watches themselves, have split off into their own sect of sorts. They use the centuries-old basics of traditional mechanical watchmaking but put them to use in zany, avant-garde ("crazy" is how Baumgartner describes them) creations that Tompion et al might not even recognize as timepieces. Modern-day watch enthusiasts know them instantly, though: shaped like spaceships, devoid of hands, they are for many the very symbols of a renegade movement in high-mechanical watchmaking that emerged a decade ago.

**URWERK ITSELF** goes back to 1997. That's when Baumgartner, just 22, made his Basel Fair debut with a watch called the UR-101. He had attended watchmaking school in Solothurn and then, declining his father's invitation to come work in the clock-restoration atelier, a decision that angered his father at the time, struck out on his own. "My father wanted me to join him in his atelier. But I didn't want to because this is what I had seen all during my childhood, his atelier."



*Urwerk's first watch, the UR-101*





*After the original 103 (far left) came out, subsequent versions had crystals that showed the time-telling satellites.*

More important, Baumgartner had assigned himself an important mission, one he couldn't fulfill in his father's antique-loaded workshop. It was, in the famous phrase of Ezra Pound (who, of course, was talking about poetry, not watchmaking), "to make it new"; that is, to take traditional mechanical-watch technology and refashion it into something no one has seen before.

That goal in mind, he answered a help-wanted advertisement placed by independent watchmaker Svend Andersen and, in 1995, went to work for him in Geneva. Andersen was one of the founders, in 1985, of the Academy of Independent Watchmakers (AHCI) and a major figure in what would soon blossom into a full-blown indie-watchmaker movement. "I learned from him how to do very special watches," Baumgartner says of Andersen. "[Although] aesthetically, Svend Andersen is very traditional, making steel watches with round cases, with the mechanics he's very open to going in new directions."



*The "control board" on the back of the 103*



Urwerk's Opus 5 for Harry Winston

The job, which he held for two years, provided valuable experience. It also enabled him to put aside money to realize an idea he had been mulling over for years.

The idea was for a no-hands, futuristic wristwatch that indicated the time by means of rotating hour numerals. Felix and his older brother Thomas, also a watchmaker, conveyed this idea to Frei, an artist whom Thomas had met some years earlier. Frei came up with a model to which the three gave the straightforward name "101." It was the birth of the Urwerk Genève company. (The firm's name is a combination of "Ur," an ancient Sumerian city known for the obelisks whose shadows were used to tell time, and the German word *werk*, for "works" or "mechanism." The "Genève" is meant to be funny, bringing to mind the traditional *haute horlogerie* brands that stand in such stark contrast to Urwerk, says Baumgartner.)

Then as now, watch companies were competing with each other to make ever-more complicated watches. The 101 was a reaction to that trend; it could not have been simpler. Its time indication consisted of a semi-circle on the upper part of the

watch face through which swept a numeral denoting the hour. The numeral's position in the semicircle showed how many minutes in the hour had passed.

The idea for that watch came, somewhat ironically, from Gerhard Baumgartner's atelier. There, the young Baumgartner had seen a 17th-century clock with a so-called "wandering hour" display, that is, a display that showed the time by means of a numeral from 1 to 12 passing through a semicircle and pointing to the correct minute as it did so. The clock belonged to the genre known as "night clocks," which could be read in the dark by means of a candle or oil lamp burning behind the clock and shining through the display.

Despite its more-than-300-year-old origin, the 101 watch dealt a sharp blow to traditionalism. That was its point. In the mid-1990s, there were no modernist currents running through mechanical watchmaking, says Baumgartner. He was determined to start one. "We had to start a push to provoke people," he says. Watches, like other products, must represent the time in which they are made, incorporating new technological and aesthetic ideas,



Baumgartner at work, wearing a UR-202 watch





*The UR-203, which has telescoping hands affixed to its satellites*

rather than becoming mired in the past, he believes. “When you buy a new Ferrari, you don’t want to have a car of 100 years ago. You want a car of today.”

He, Frei, and Thomas Baumgartner (who would leave the company in 2004) showed the watch at the booth of the AHCI. (Urwerk became an official AHCI member the next year.) They had no money for a showcase, so they improvised a display: putting the watch on top

of a hot plate (turned off, wisely) to indicate that the watch was a “hot” item.

The trio, full of youthful vim, had high expectations, says Yacine Sar, who handles Urwerk’s publicity. “I remember they told me they were going to compete with Rolex,” she says with a laugh.

As it turned out, the production of the 101 never got beyond an un-Rolex-like 10 to 15 watches per year, which they sold for 9,000 Swiss francs each, a figure that amounted to beans, given the 101’s *haute de gamme*-style exclusivity. The trio’s first sale was to an entrepreneur named Boris Lietzow, who operated a watch boutique (since closed) in the New York department store Bergdorf Goodman. But there were few like him. Backs against the wall, the Urwerk team gave up on the 101.

But not on Urwerk. They strode on, trying to come up with a watch that would put them on the map, squirreling away whatever money they could to invest in its development. It was a very tough period, says Baumgartner. “We had some very difficult moments, because everyone was very negative, the journalists, the retailers, the whole industry. They looked at us and said, ‘What are you doing here?’”

To save money, Baumgartner had become a squatter, staying in a series of unoccupied houses in Geneva. Doing so was sanctioned by the city, Baumgartner explains: in order to discourage people from speculating on real estate, the government allowed squatters to move into houses that had been empty for a long time. Geneva had some 2,500 squatters in the 1990s. Baumgartner lived among them for four years, until 1999. “It helped me to be able to put the money I would have put into rent into Urwerk,” he says. Furthermore, it was fun, bringing him elbow-to-elbow with many footloose artists and other free spirits from all over the world.

To make ends meet, Baumgartner, no longer working for Andersen, took a job with Vacheron Constantin, splitting his time 50-50 between that company and Urwerk.

**IN 2003**, the Baumgartners and Frei finally launched the watch that would become

the face, so to speak, of Urwerk. An oddly shaped watch with no hands, it was called the UR-103. (A steel version of the 101, called the 102, had been launched with the 101.) Like the 101, it made use of the “wandering hour” concept, with a moving hour numeral pointing to the minutes. But it was far more complex: the hour numerals were printed on four cone-shaped “satellites” — three numerals on each satellite — that rotate both on their own axes and around a central axis in such a way that the correct numeral is always visible and pointing to the correct minute on the curved minute scale at the bottom of the dial. The time display’s position on the bottom of the watch was Gerhard Baumgartner’s idea; he had suggested to his sons that they make a watch that could be worn while driving. (Gerhard Baumgartner has gotten over his irritation and now wears an Urwerk watch. “He has started to be a little proud of what we do,” says Baumgartner.)

On the watch’s back was something Baumgartner calls the “control board,” which enables the wearer to regulate the watch by means of a small screw. It’s similar, Baumgartner says, to a device Breguet used. The control board also contains a power-reserve indicator and a seconds-and-minutes indicator (minutes, of course, are also shown on the front of the watch, but it can be tricky to read them precisely, and seconds are not shown at all).

The watch was a hit, not least because of the control board, says Baumgartner. “People had never seen that. They were very intrigued.” The price tag, SF52,000 (about \$39,000 at the time), was not a deterrent. “It’s quite funny that a watch that was six times more expensive was easier to sell [than the 101],” he says.

The watch’s outré styling was a huge draw. The design wasn’t inspired by any specific object, Baumgartner says, but sprang from Frei’s general appreciation of aerospace design themes, especially those with a retro twist. (The walls of Urwerk’s Geneva workshop carry big posters showing “Star Trek” characters — Mr. Spock, Captain Kirk — on whose wrists Frei has placed images of Urwerk watches.) “He likes the movies of the

*FOR ITS BASEL DEBUT, URWERK  
COULD NOT AFFORD A SHOWCASE,  
SO IT DISPLAYED ITS NEW “HOT”  
WATCH ON A HOTPLATE.*

*The CC1 shows hours and minutes with linear displays; seconds are shown with both linear and digital indicators at the top of the dial.*







*An exploded view of the CC1 shows the hours and minutes cylinders and the seconds disk.*

1960s and '70s, and also the aerospace designs by the Russians and Americans during that time," Baumgartner says.

That Urwerk could produce such a complicated watch was thanks in large part to the Baumgartners having met a case and components maker named Christian Gros, of Christian Gros SA, also based in Geneva. Before teaming up with Gros and his sophisticated CNC machines, Urwerk made its own parts by hand, Felix the movements, Thomas the cases.

The 103 made Urwerk financially viable for the first time. The Baumgartners

and Frei were at last able to pay themselves salaries, and Felix Baumgartner could give up his job at Vacheron Constantin to devote himself completely to Urwerk.

And he needed to: an important customer, attracted by the 103, had asked Urwerk to work with him. It was Max Büsser, who was in charge of Harry Winston's Opus series of unusual, high-mech watches, which Harry Winston developed in collaboration with various independent watchmakers. Urwerk was asked to make Opus 5, which would follow Opus watches 1 through 4, designed



## JUST AS MUSIC EVOLVED FROM CLASSICAL TO ELECTRONIC, SO WILL HAUTE HORLOGERIE, BAUMGARTNER BELIEVES.

by François-Paul Journe, Antoine Preziuso, Vianney Halter and Christophe Claret.

Opus 5 was based, like the 103, on the satellite concept of rotating hours. Unveiled in 2005, it was a milestone in much the same way that the 103 had been, Baumgartner says. "It gave this crazy type of watchmaking credibility. People saw for the first time, through Harry Winston, what we do here. It gave us a lot of new possibilities."

Since then, Urwerk has introduced two new designs, both in the avant-garde mode of the 103 but even more complex. One of them was used in the UR-200 series, nicknamed "the Hammerhead" because of the shape of the watches' crystals. This line was launched in 2007 with the 201 model. Like the 103, the 200-series models make use of orbiting satellites to indicate the time. Unlike the 103, they have pointers emerging from each satellite that indicate the minutes precisely. The pointer extends itself or retracts, like a telescope, to adjust to the changing distance it must span as it sweeps along the minutes track.

Two years after the 201 came out, Urwerk introduced the UR-CC1, or King Cobra. It is the first Urwerk watch since the 101 without satellites. Inspired by a watch that the celebrated Swiss watchmaker Louis Cottier (1894-1966) designed for Patek Philippe in 1958, it features linear displays for the hours, minutes and seconds. (The Cottier watch was also named the Cobra; "CC" stands for "Cottier Cobra.")

**BAUMGARTNER** acknowledges that fans, or potential fans, of Urwerk's singular approach to watchmaking and watch design are rare. "They have to love and

understand the watchmaking culture, and to be very open to new possibilities, to new mechanics. So there aren't a lot. Because most of the watch lovers who understand our profession like the traditional side, the round Patek Philippe, where they know it was made by an old watchmaker in a white *blouson* [jacket]." (Being wealthy is another prerequisite: Urwerk watches start at \$55,000, the price for the UR-103.09 in rose gold.)

That's OK with Baumgartner and Frei, who make only about 200 watches in a good year, and who have no ambition to expand Urwerk's capacity beyond its current level. They have just 12 employees, six in the Geneva workshop, where the watches are assembled and quality-tested, and six in another facility in Zurich, where some of the components are made. (The company buys other components not just from Christian Gros but from suppliers including Switzerland's Mimotec SA.)

There will surely be more such consumers as new-wave watchmakers multiply, he believes.

"It's just the beginning of watchmaking that incorporates the aesthetics and technical possibilities of today. Now, the percentage of 'new' watchmaking is probably three or five percent. In 20 or 30 years, it will be 50 percent." But even if it's only 10 percent, he adds, it's clear now that there is a market for Urwerk and its iconoclastic brethren: Richard Mille, Vianney Halter, and others.

And they'll continue to remake watchmaking in ever-more technically advanced modes, he says. Baumgartner, who plays trumpet as a hobby and is a big jazz fan, likes to draw parallels between music and horology. "In music, we had an evolution from classical, to jazz, to

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The "Mexican Fireleg" version of the 103, which was launched last year

rock and roll, to electronic music, and we will have the same evolution in *haute horlogerie*. Now we are somewhere near rock and roll: between rock and roll and hippie music."

Following the music analogy, the next step for *haute horlogerie* is electronics, he says. "Electronic horology is interesting when it is possible to do by hand. You can do very interesting, electronic, artisanal details," he says.

Does that mean there may one day be electronic Urwerk watches? "I'm not yet making them in a hidden room, but I have my contacts and my ideas," says Baumgartner. "For me there are no limits." ○

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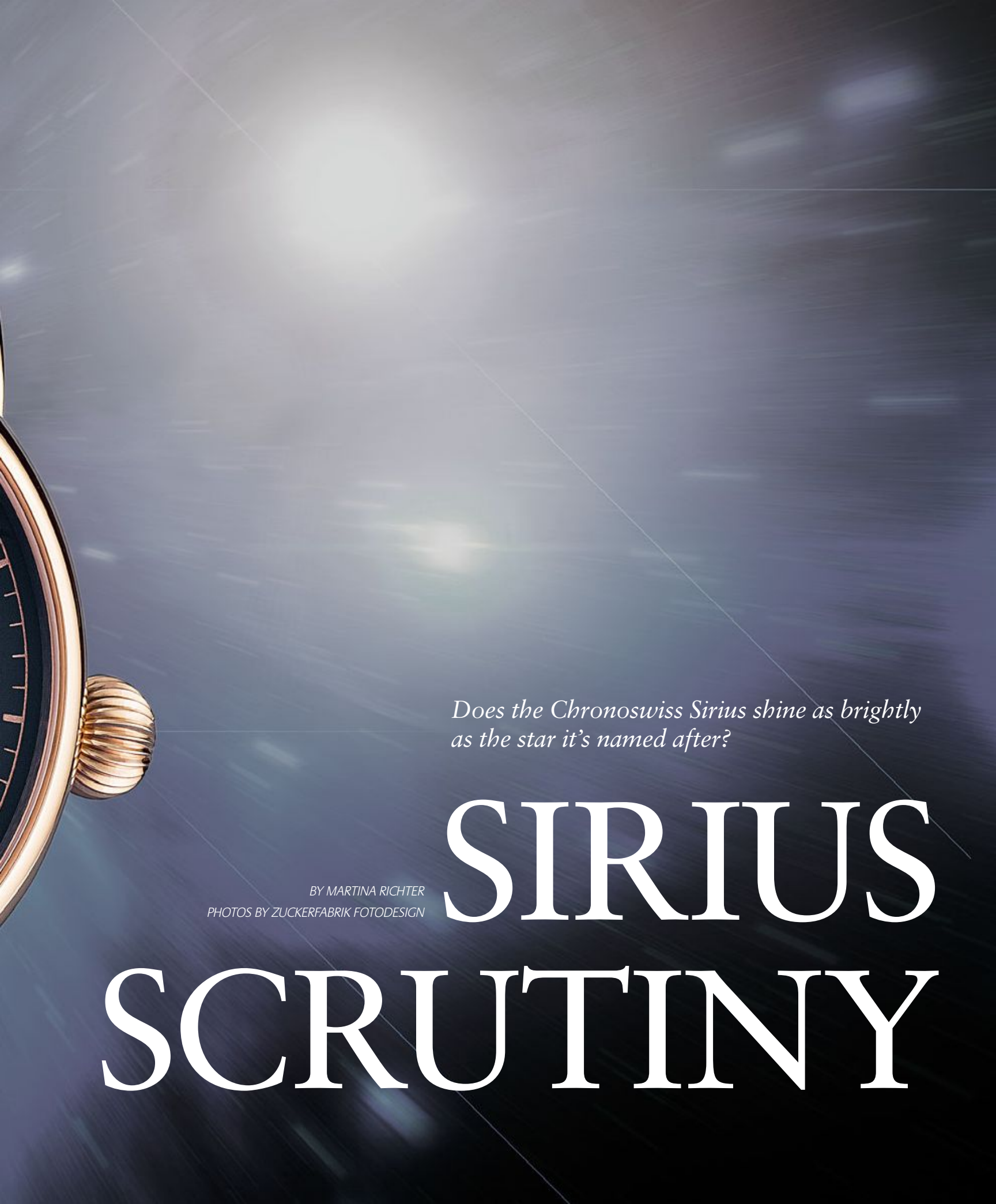
### Pros

- + Based on historical caliber
- + Comfortable to wear
- + Classically elegant design

### Cons

- Precision suffers when watch is not fully wound
- No stop-seconds feature





*Does the Chronoswiss Sirius shine as brightly  
as the star it's named after?*

BY MARTINA RICHTER

PHOTOS BY ZUCKERFABRIK FOTODESIGN

# SIRIUS SCRUTINY

# B

ack in 1993, Gerd-Rüdiger Lang, founder of Munich-based Chronoswiss, bought a batch of movements made by Marvin, a Swiss watch company that traces its history to 1850. Among those movements was the hand-wound Caliber 700, first launched in 1952. It is this movement, which was manufactured into the 1980s, that powers the Chronoswiss Sirius.

Chronoswiss has thoroughly reworked and updated the movement and renamed it Caliber C.111. It now has a large Glucydur balance, a Nivarox-1 hairspring and Incabloc shock absorption. Its frequency has been increased to 21,600 vph from the 18,000 vph of the original.

The movement's architecture calls to mind that of a pocket-watch. The C.111 is 13 lignes, or 29.3 millimeters, in diameter, and just 3.3 millimeters thick. It has a power reserve of 46 hours. Fine adjustment is via an index pointer.

The movement's rate results were less than ideal. Our electronic timing machine determined that the watch gained an average of 3.8 seconds per day with a fully wound mainspring. That's entirely acceptable, although the difference in rate between the various positions was 13.2 seconds. Fully wound, the Sirius ran fastest (+10.7 seconds) in the dial-up position and slowest (-2.5 seconds) in the crown-left position. After running for 24 hours, it showed an average deviation of +12.7 seconds, with deviations of 21.6 seconds among the individual positions and a maximum gain of 24.3 seconds in the dial-up position.

Worn on the wrist and wound once per day, the Sirius yielded better results: it gained between nine and 13 seconds. When we left the watch overnight with the dial facing up, it ran extremely fast, and the next day showed a gain of 18 to 24 seconds. These results confirmed those found on the timing ma-

*The movement is decorated with sunbursts, Geneva waves, beveled edges, settings for the jewels and brightly polished screws.*







Caliber C.111 is based on the Marvin Caliber 700.

THE RATE RESULTS  
WERE LESS THAN  
IDEAL, BUT THIS  
WATCH IS  
BEAUTIFULLY  
DESIGNED AND  
CRAFTED.

*The case has both polished and matte surfaces. The crown is large and easy to grasp.*



## SPECS

### CHRONOSWISS SIRIUS

**Manufacturer:** Chronoswiss Uhren GmbH, Dr.-Johann-Heitzer-Strasse 4, Karlsfeld, Germany

**Reference number:** CH 1021 R bk

**Functions:** Hours, minutes, seconds

**Movement:** Caliber C.111, based on the Marvin 700; hand-wound; 21,600 vph; 17 jewels; Glucydur balance; flat, Nivarox 1 hairspring; fine adjustment via index; Incabloc shock absorption; diameter = 29.3 mm; thickness = 3.30 mm; decorated w/ Geneva waves, circular graining and sunbursts; power reserve = 46 hours

**Case:** Rose gold, nonreflective sapphire crystal and caseback, polished and matte finishes, onion-shaped crown, water-resistant to 30 meters

**Strap and clasp:** Louisiana crocodile strap, pronged buckle

#### Rate results:

(deviation in seconds per day when fully wound/after 24 hours)

Dial up: +10.7/+24.3

Dial down: +9.9/+19.1

Crown up: +0.8/+13.8

Crown down: 0.0/+2.7

Crown left: -2.5/+3.4

Greatest deviation of rate: 13.2/21.6

Average deviation: +3.8/+12.7

Mean amplitude:

Flat positions 321°/285°

Hanging positions 273°/249°

**Dimensions:** Diameter = 39.8 mm, thickness = 7.70 mm, weight = 79 g

**Variations:** White dial, stainless steel with white or black dial (\$4,900)

**Price:** \$9,900

*Chronoswiss Sirius*

chine: only when fully wound does the watch perform with acceptable rate values. When the tension in the mainspring declines (as it periodically will in a hand-wound watch), the Sirius runs fast, and especially so if it is taken off the wrist and left lying face up. This corresponds to the dial-up position on the timing machine, where the Sirius showed its greatest rate deviations of all positions. Wearing the watch on one's wrist compensates for the greatest deviations (as do the measurements in five positions on the timing machine) and yields an average daily gain of 12.5 seconds after several weeks of wearing.

**A PANE OF TRANSPARENT** sapphire, treated with a nonreflective coating and inset into the fully threaded back, provides an unobstructed view of the movement. Circular graining adorns the C.111's base plate and pallet bridge; Geneva waves, its barrel bridge, gear-train bridge and balance cock; and sunburst finishing, its winding wheel. Other attractive features include beveled edges, settings for the jewels, polished screws and the inverted Chronoswiss logo on the wheel bridge.

Engravings on the back identify the model and specify its level of water-resistance: 30 meters. The rose-gold rim also bears a little symbol which, upon closer scrutiny, turns out to be a picture of a tiny diving helmet. It's meant to symbolize water-tightness, and seems out of place because a water-resistance level of only 30 meters is not sufficient for diving. Nor does the watch's elegant appearance suggest that it was designed for that (or any) sport.

**WITH A CASE THICKNESS  
OF JUST 7.7 MM, THE  
SIRIUS IS CHRONOSWISS'S  
THINNEST MEN'S WATCH.**

*The Sirius has a large, 40-mm case to accommodate the 29.3-mm movement.*



The Sirius is classical, elegant, and timeless and — with a case thickness of just 7.7 millimeters — also the slimmest Chronoswiss men's watch. The weighty case contributes 36.5 grams of 18-karat rose gold to the watch's total weight of 79.0 grams. The bezel, caseback and fronts of the lugs are polished while the middle part of the case and the sides of the lugs are satin-finished.

The combination of polished and matte surfaces gives this watch a distinctively Chronoswiss look, which is reaffirmed by the large, gold, onion-shaped crown (which operates perfectly) and the elegantly tapered, downwardly arcing lugs. Screws inserted through holes drilled in the ends of the lugs attach, via the patented Autobloc system, the crossbars at either end of the Louisiana crocodile-skin strap. The shape of the case and the high quality of the strap make the watch very comfortable. As is appropriate for a classic watch, the strap has a classic pronged buckle, this one made of rose gold and firmly secured by screws. A folding clasp is also available.

The watch's crystal, like its caseback, is made of sapphire and is nonreflective. Nothing on the dial distracts from its essential function of displaying the time. There are three hands, applied indices and numerals and a calibrated scale surrounding the seconds subdial. Nothing has been left to chance. For example, the small seconds hand is positioned precisely in the center of the lower half of the dial. (The watch does not have a stop-seconds function.) The disk of the guilloché-embellished subdial spans the entire area between the "6" and the dial's center. This results in both a very attractive and very easy-to-read dial. The watch's legibility is further improved by the well-proportioned seconds hand, whose tip is exactly long enough to reach the scale along the edge of the subdial. The hands and dials are





*The serial number appears at the "12" and the reference number at the "6."*

not luminous, so at night, darkness reigns on the dial (ironic, since Sirius is the brightest star in the sky).

Chronoswiss crosses its "t's" and dots its "i's" with a pair of center-mounted, gold-plated, *feuille* hands. Not only are they perfectly proportioned; they're manually finished. The tip of the minute hand curves downward, coming within a hairsbreadth of the dial. This minimizes errors due to parallax.

So, is the Sirius the star its name suggests it is? Its classic styling and high quality of workmanship say yes; only its rate results, which race toward cosmic speeds, argue differently. ○

*The minute hand curves downward at its tip to minimize parallax.*



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# Annual Check-Up

*We take the pulse of A. Lange & Söhne's year-old Saxonia Annual Calendar.*

BY JENS KOCH

PHOTOS BY NIK SCHÖLZEL



Last year, A. Lange & Söhne added an annual calendar to the long list of complications in its portfolio. This type of calendar adjusts itself automatically for the varying lengths of the months with 30 or 31 days: it “knows” which are which. An annual calendar is stumped only by February, which, of course, has either 28 or 29 days. When March begins, the owner must therefore move the date forward to the first of that month. An annual calendar is so named because it needs adjustment just once a year.

The company already had a perpetual calendar in its line-up, the Langematik Perpetual, when it launched the Saxonia Annual Calendar. Both watches have very similar, self-winding movements, and both have the same highly precise moon-phase display, which will be off by just one day after 122 years. The perpetual calendar nonetheless costs almost twice as much as the annual calendar (\$62,900 versus \$36,400). The Langematik Perpetual does have a couple of attractions that the Saxonia





## SPECS

A. LANGE & SÖHNE SAXONIA  
ANNUAL CALENDAR

**Manufacturer:** Lange Uhren GmbH,  
Altenberger Strasse 15, D-01768  
Glashütte, Germany

**Reference number:** 330.026

**Functions:** Hours, minutes, seconds,  
large date, day, month, moon- phase

**Movement:** L.085.1, automatic; 21,600  
vph; 43 jewels; Kif shock absorbers;  
Glucydur balance; swan's-neck fine  
adjustment mechanism; hand-engraved  
balance cock; diameter = 30.4 mm;  
height = 5.4 mm; 46-hour power reserve

**Case:** White-gold case, nonreflective  
sapphire crystal, six screws hold back in  
place, exhibition caseback with non-  
reflective sapphire window, water-  
resistant to 30 meters

**Strap and clasp:** Hand-sewn crocodile-  
skin strap, white-gold pronged buckle

**Rate results:**

(Deviations in seconds per 24 hours)

Dial up	+7
Dial down	+5
Crown up	-3
Crown down	-3
Crown left	-4
Crown right	-3
Greatest deviation of rate	11
Average deviation	0
Mean amplitude:	
Flat positions	321°
Hanging positions	284°

**Dimensions:** Diameter = 38.5 mm,  
height = 9.8 mm, weight = 96 grams

**Variations:** Rose gold (\$36,400)

**Price:** \$36,400

lacks: a leap-year indicator, found on many perpetual calendars, and a 24-hour display.

The Annual Calendar is more attractive than its Perpetual counterpart, thanks in part to the absence of these features. Eliminating both the small leap-year display, superimposed on the Perpetual's month subdial, and the 24-hour display, which shares a subdial with the Perpetual's day indicator, makes the Annual Calendar's dial cleaner and easier to read, and also gives perfect east-west symmetry to the dial. A love of detail is evident in many places, such as the stalk-shaped indices, which are faceted on all four sides; the hands, which arch gently toward their tips; and the perfectly polished little moon that adorns the moon-phase disk.

The designers of the Saxonia Annual Calendar have given it a very harmonious appearance; but because of precisely this quality, it doesn't look quite as distinctive as some of this *manufacture's* other notable creations, such as the Lange 1 or the Zeitwerk.

Lange has also made the watch very legible: the blued hands contrast strongly with the large silver dial. And the large date, with Lange's standard double window, can be read at a glance. The months circle spells out only every second month. The watch is available with either English or German names for the days and months. However, more than a fleeting glance is needed to read the information displayed on these two subdials, and nothing on the dial is luminous. The nonreflective treatment on the crystal, which is made of sapphire, enhances daytime legibility. The crystal is so glare-free that it's nearly invisible.

**ONE OF THE WATCH'S** minor shortcomings is that the date display takes half an hour to switch completely to the next day's date: it starts to advance at five minutes before midnight. If the watch hasn't been worn for several days, the wearer can quickly bring the calendar indicators up to date by pushing buttons set into the case: the big date is adjusted by a button at 10 o'clock, the day by one at 9 o'clock, the moon-phase by one 8 o'clock, and the month by one at 3:30. Each of these little buttons is pressed with the tip of a pen-like tool, which minimizes the risk of scratching the case. The buttons are neatly inset into the satin-finished middle part of the extremely well-crafted case, so they scarcely detract from the watch's elegant appearance. The patented "zero-reset" hand-setting mechanism not only momentarily stops the balance, but also sends the seconds hand hurrying back to its starting position at the top of its subdial (which also contains the moon-phase display). This hand and the balance instantaneously resume moving when the crown is pressed in. This practical feature, which functions like a chronograph with a zero-reset heart cam on the stem of the seconds hand, makes it easy to synchronize the watch with a time signal.

Although many watch lovers might have preferred a folding clasp, the pronged buckle is another practical detail. Thanks in part to its curved prong, this buckle cleverly guides the strap through it without the leather kinking and ensures that the strap wraps straight and flat around the wrist when the buckle is





The movement's decorative touches include Glashütte waves, circular graining and sunbursts.

CALIBER L.0851, LIKE ALL LANGE MOVEMENTS, IS ELABORATELY EMBELLISHED. THE THREE-QUARTER ROTOR, WHICH IS MADE OF GOLD, HAS A PLATINUM RIM.





*The calendar functions are adjusted using a pen-like tool to press buttons inset into the sides of the case.*

*THE WATCH IS HARMONIOUS IN ITS DESIGN,  
AND, THANKS TO ITS LARGE DIAL AND  
BLUED HANDS, ALSO EASY TO READ.*



## SCORES

A. LANGE & SÖHNE SAXONIA  
ANNUAL CALENDAR

**Strap and clasp (max. 10 points):** The elaborately polished pronged buckle minimizes wear on the beautiful, hand-sewn, crocodile-skin strap. **9**

**Operation (5):** When the easy-to-operate crown is pulled out, the seconds hand hurries to its zero position and remains there; in order to prevent scratching of the case, a little pen-like tool is provided for pushing the inset buttons that adjust the calendar settings. **4**

**Case (10):** The case is well crafted and meticulously polished; the nonreflective treatment is excellent on the front and back crystals. **9**

**Design (15):** The dial's harmonious and symmetric arrangement contributes to the watch's attractive overall appearance. **14**

**Legibility (5):** The most important displays (i.e., hours, minutes and large date) are easy to read at a glance; the day of the week and the month are smaller, but still easily legible. **4**

**Wearing comfort (10):** This watch is comfortable to wear thanks to its slim, lightweight case, not-too-stiff strap and practical, pronged buckle. **9**

**Movement (20):** A *manufacture* movement of the finest sort: three-quarters plate, gorgeous manually executed embellishments, and a complication that's technically nearly identical to that of a perpetual calendar. **18**

**Rate results (10):** The relatively large spread among the deviations in the various positions resulted in a perfect calculated average deviation; the watch gained slightly on the wrist. **6**

**Overall value (15):** Well-priced compared with other Lange watches. **13**

**TOTAL: 86 POINTS**



closed. An additional crossbar enhances the buckle's stability. The wearing comfort here is better than that offered by a folding clasp because the pronged buckle is so flat and short that it can't press uncomfortably against the skin. And, after all, a pronged buckle is really no more difficult to open and close than a belt buckle.

The case and clasp are neatly crafted and very meticulously polished. The crocodile-skin strap clearly shows that its makers have spared no expense or effort in its production: the scales on the leather are attractive and the strap is fully rembordered. In this very laborious manufacturing method, the upper leather is wrapped around the sides and the lining, glued and then stitched together with the inner leather. The sewing is done by hand with saddle stitches.

Along with the very supple strap, the case's lightness (less than 100 grams) and slim construction (under 10 millimeters) combine with the smooth plane of the sapphire window in the caseback to ensure that the Saxonia feels very comfortable on the wrist.

**LIKE THE CRYSTAL** over the dial, the one on the back is non-reflective and nearly invisible, thus providing a perfect view of the Sax-0-Mat self-winding Caliber L.085.1. This movement, like all Lange movements, has been elaborately embellished. The 21-karat-gold, three-quarters rotor is adorned with a beautifully crafted relief engraving of the words "A. Lange & Söhne." Furthermore, the three-quarters plate, as well as the bridges and cocks (made of nickel silver) bear various decorative patterns such as Glashütte waves, circular graining and sunbursts. The hand-engraved balance cock is one of the company's specialties, as are the swan's-neck fine adjustment mechanism and the mirror-polished cover plate on the escape-wheel cock. A connoisseur's gaze will also notice a screw balance, blued screws with polished heads, and chamfered and polished edges.

The movement is as well-made as it is beautiful. The ball-borne rotor, which has a platinum rim, winds the mainspring in both directions of rotation. Four ball bearings in the reversing and reducing gear train guarantee smooth running. The mechanisms for the annual calendar are hidden on the other side — that is, under the dial.

So how does Lange's Annual Calendar work? The hour wheel propels a 24-hour wheel, which bears a lone switching finger. Each day at midnight, this finger propels the day and the moon-phase displays one increment ahead, and also acts via the main lever to move the 31-day wheel one position forward. The 31-day wheel also advances the month wheel whenever the former switches from the 31st of one month to the first of the next. But how does the mechanism "know" what to do at midnight on the last day of a 30-day month? This "knowledge" is encoded in a stepped cam on the axle of the month wheel. The cam, the so-called "months program wheel," has notches that correspond to the 30-day months. These notches ensure that a rocker with a pawl is properly deflected. In the course of the daily switching process, the main lever also propels this pawl, which attempts to advance a spiral cam mounted on the 31-day wheel.

*The supple, crocodile-skin strap is hand-stitched and fully rembordered.*

THE PRONGED BUCKLE IS MORE COMFORTABLE THAN A FOLDING CLASP BECAUSE IT IS SO FLAT IT CAN'T PRESS AGAINST THE SKIN.







### Pros

- + Harmonious design
- + Excellent craftsmanship
- + Beautiful *manufacture* movement
- + Easy-to-read date

### Cons

- The date display switches slowly
- Less than ideal rate results

This attempt succeeds only at the end of each month, when the pawl is allowed to touch the spiral cam. This contact occurs on the 30th day of 30-day months because the pawl and the rocker are both deflected farther outward by the months program wheel.

A **TECHNICALLY SAVVY** reader will no doubt already have realized that this architecture is very similar to that of a perpetual calendar, especially because the months program wheel has 48 increments and rotates once every four years so that an additional reduction gear is needed for the months display. If you compare this with the construction of the perpetual calendar in the Langematik Perpetual, you'll discover that the two mechanisms are indeed technically identical. The only differences are that the Perpetual's 24-hour and leap-year hands are missing on the Annual Calendar, and the increments for the Februaries are shallower on the months program wheel of that watch. It thus comes as no surprise to learn that the Annual Calendar caliber, with 476 components, has the same height and only two fewer parts than the Perpetual Calendar caliber.

For comparison's sake, imagine that Porsche offers an entry-level roadster that costs only half as much as a 911. And keep dreaming that the only difference between the two is that the tires on the lower-priced car are designed for a maximum of 100 miles per hour rather than 200 mph. Now wake up: this is surely not a typical scenario for the world of automobiles and neither is it usual among watches. Other annual calendars (for example, from Patek Philippe) are much simpler and were designed independently of the brand's perpetual calendar.

Lange's approach is all the more surprising because a perpetual calendar is only so costly because it's so complex. Apparently it would have been more expensive to develop a calendar mechanism expressly for the Annual Calendar than simply to modify the mechanism already used in the Langematik Perpetual watch. Be that as it may, the purchaser of a Saxonia Annual Calendar can be happy about getting nearly all the complex technology of a perpetual calendar, while paying a price that's only slightly more than that of the Lange 1 Moon Phase. (\$32,600).

Some people claim that complicated wristwatches are often not especially accurate timekeepers. This is at least partly true for the Saxonia Annual Calendar: although a calculated deviation of zero seconds across all positions is absolutely as good as it gets, the individual values are spread a full 11 seconds apart, and the amplitude declined a relatively large 27° between the flat and hanging positions. On the wrist, our tested watch gained two to four seconds per day.

The Saxonia Annual Calendar has no major weaknesses. It's especially appealing thanks to its attractive design, a beautifully decorated *manufacture* movement, a practical calendar complication, good legibility and the outstandingly high standards of quality upheld in the production of all its components. The price is reasonable, too, considering the complicated calendar mechanism. ○

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*WatchTime presents  
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watches with eye-  
catching exhibition  
casebacks.*

## ANDERSEN GENÈVE Quotidiana

**Reference Number:** 610

**Movement:** Frédéric Piguet 1150, automatic; diameter = 25.6 mm; height = 5.6 mm; 28,800 vph; 29 jewels; 72-hour power reserve

**Case:** Rose gold and white gold; diameter = 40 mm; height = 9 mm; sapphire crystal; pressure-fit case-back with sapphire window; water-resistant to 30 meters

**Strap and clasp:** Leather with white-gold pronged buckle

**Price:** \$33,250







**GIRARD-PERREGAUX**  
**1966 Annual Calendar**  
**and Equation of Time**

**Reference Number:** 49538-52-131-BK6A

**Movement:** Manufacture caliber GP033MO, automatic; annual calendar; equation of time; diameter = 25.6 mm; height = 4.9 mm; 28,800 vph; 44 jewels; 46-hour power reserve

**Case:** Rose gold; diameter = 40 mm; height = 10.7 mm; curved sapphire crystal; pressure-fit sapphire caseback; water-resistant to 30 meters

**Strap and clasp:** Alligator leather with rose-gold pronged buckle

**Variations:** In white gold (\$32,500)

**Price:** \$31,000



## GLASHÜTTE ORIGINAL Senator Diary

**Reference Number:** 100-13-01-01-04

**Movement:** Manufacture caliber 100-13, automatic; alarm function with monthly programming; diameter = 31.2 mm; height = 4.2 mm; 28,800 vph; 86 jewels; 55-hour power reserve

**Case:** Rose gold, diameter = 42 mm; height = 12.4 mm; flat sapphire crystal with nonreflective treatment on both sides; sapphire exhibition caseback held in place by five screws; water-resistant to 30 meters

**Strap and clasp:** Alligator leather with rose-gold double-folding clasp

**Variations:** In stainless steel (\$18,100)

**Price:** \$29,400





## **JAEGER-LECOULTRE** Master Grande Tradition Grande Complication

**Reference Number:** 502 35 80

**Movement:** *Manufacture* caliber JLC 945, manual-wind; starlit sky, zodiac, month, sidereal time, flying tourbillon, 24-hour display; height = 12.6 mm; 28,800 vph; 49 jewels; 48-hour power reserve

**Case:** White gold; diameter = 44 mm; height = 15.8 mm; curved, nonreflective sapphire crystal; sapphire caseback held in place by six screws; water-resistant to 50 meters

**Strap and clasp:** Crocodile leather with white-gold double-folding clasp

**Limited edition of 75 pieces**

**Price:** \$350,000







**PANERAI**  
**Radiomir Titanio**

**Reference Number:** PAM 00338

**Movement:** Manufacture caliber P.999/1, manual-wind; diameter = 27.4 mm; height = 3 mm; 21,600 vph; 19 jewels; 60-hour power reserve

**Case:** Titanium; diameter = 42 mm; curved, nonreflective sapphire crystal; screw-down crown; fully threaded case-back with sapphire window

**Strap and clasp:** Alligator leather with stainless-steel pronged buckle

**Variations:** In stainless steel (\$7,200); in rose gold (\$17,400)

**Price:** \$7,900



## PATEK PHILIPPE Reference 5170 Chronograph

**Reference Number:** 5170 J

**Movement:** *Manufacture* caliber CH 29-535, manual-wind; diameter = 29.3 mm; height = 5.35 mm; 28,800 vph; 33 jewels; 65-hour power reserve

**Case:** Yellow gold; diameter = 39 mm; height = 10.9 mm; sapphire crystal, fully threaded caseback with sapphire window; water-resistant to 30 meters

**Strap and clasp:** Hand-stitched alligator leather with yellow-gold folding clasp

**Price:** \$66,200





## TAG HEUER Carrera Calibre 1887

**Reference Number:** CAR 2110

**Movement:** Calibre 1887, automatic; chronograph; diameter = 29.3 mm; height = 7.1 mm; 28,800 vph; 39 jewels; 50-hour power reserve

**Case:** Stainless steel; diameter = 41 mm; height = 15.7 mm; curved sapphire crystal with nonreflective coating on both sides; fully threaded sapphire exhibition caseback; water-resistant to 100 meters

**Bracelet and clasp:** Stainless steel with safety folding clasp

**Variations:** With calfskin leather strap

**Price:** \$3,900







## **ZENITH** El Primero Striking 10th

**Reference Number:** 03.2041.4052/69.C496

**Movement:** Manufacture caliber El Primero 4052 B, automatic; chronograph with 1/10-second display; diameter = 30 mm; height = 6.6 mm; 36,000 vph; 31 jewels; approximately 50-hour power reserve

**Case:** Stainless steel; diameter = 42 mm; curved sapphire crystal with nonreflective coating on both sides; sapphire caseback held in place by four screws, water-resistant to 100 meters

**Strap and clasp:** Alligator leather with stainless-steel pronged buckle

**Variations:** With stainless-steel bracelet (\$11,800); with rubber strap; with rose-gold case and alligator leather strap (limited to 500 pieces, \$24,800)

**Price:** \$10,900



*At Yosemite National Park, Arthur San Antonio sports his Omega Seamaster Planet Chrono; his wife, Divina, wears a TAG Heuer Link Chronograph Lady Diamonds.*



*Tony Garcia, the proud owner, after years on a waiting list, of a 2008 stainless-steel Rolex Daytona with black dial, poses with his timepiece in front of the brand's headquarters in Geneva during a family vacation.*



*The IWC Big Pilot's Watch in its natural habitat: on the wrist of Captain Adam Rosenberg in the cockpit of an Airbus*

*On his honeymoon in Maui with wife Kerri, Dennis Jackson wears a titanium Bell & Ross BR 03-51 GMT with carbon-fiber dial.*







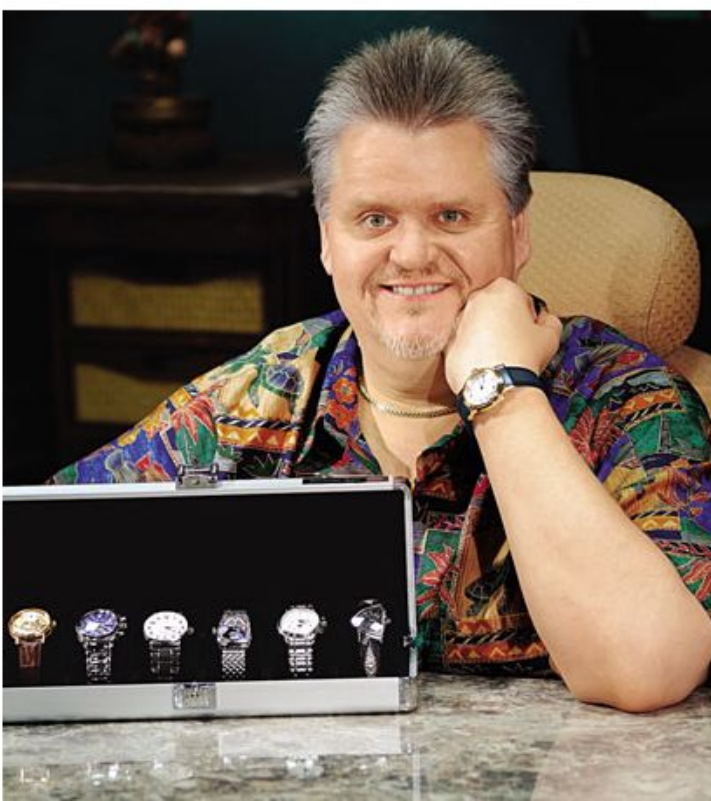
*Michael Lum cradles his seven-month-old nephew Ethan while wearing an Oris Williams F1 Day-Date, a gift from his fiancée.*



*Allan Padua is all decked out for the San Francisco Giants' World Series victory parade in team colors and his TAG Heuer Formula 1 Chrono.*



*In Oak Park, IL, Zarko Stambolic (left), son Milan and brother Dejan enjoy their favorite hobbies, watches and motorcycles. Zarko wears an Anonimo Zulu Time; Milan, a Bell & Ross BR 01-94 Chronograph; and Dejan, a Panerai Luminor Marina.*



*Sam Yukon of Corsicana, TX, wearing a yellow-gold Breguet Marine Date, shows off the rest of his collection (l-r): Breguet La Tradition, Breguet Type XX Aeronavale Chronograph, Ulysse Nardin Maxi Marine Chronometer, Dubey & Schaldenbrand Vintage Caprice, Zenith Chronomaster T Moonphase Chronograph, and Hamilton 50th Anniversary Ventura.*

*Sotheby's of London kindly allowed John Reid to try on this George Daniels 1999 slim, co-axial creation, the centerpiece of its July 16, 2010 auction.*



To submit a photo, please send your image to [photo@watchtime.com](mailto:photo@watchtime.com) with a short description identifying each person in the photo and the watch each one is wearing. Please give the first and last name of the wearer and the brand and model of the watch. If the photo was taken at an event, please specify when and where it was held. Only clear images in which both the face of the watch and the wearer are visible will be considered for publication. Images must be in JPEG format and no smaller than 1 MB. Only the best-quality and most interesting photos will be considered.

# Madame Valjoux's Fearless Forecast

Every reporter knows that you are only as good as your sources. That's why it's been my habit over the years to consult Madame Valjoux, a horological psychic based in Carouge, an adorable village just across the Arve River from Geneva. A 30-minute session with her peering into her crystal ball has proven golden to me in the past. On a recent trip to Geneva, I stopped by to see what we can expect, watch-wise, in 2011. Herewith excerpts from the session.

"Well, it looks like you're finally going to be right for a change," she told me.

"What do you see?"

"Thin, elegant, smaller watches. They're coming back big time. Didn't you predict that?"

"Yeah, in 2003, 2004, 2005 and 2006. It never happened. I gave up."

"[sarcastically] So you were ahead of your time. Take some free advice: Stick to trying to figure out what's already happened and leave the prognosticating to pros like me."

"Touché. So why thin watches, finally?"

"Because the jumbo thing has gotten boring. And have you seen a Royal Oak Offshore on a Chinese wrist, which are the only wrists that matter these days?" She scrunched up her nose and shook her

head. "Not flattering. No, the new aesthetic is lean and clean. Men's watch styling has been so cluttered for so long that spare dials are eye-catching."

"How about watch prices in the U.S.?"

"With gold at record highs and the dollar at record lows against the Swiss franc? Ouch!"

"But the boys here tell me they can't pass along increases because the U.S. market is still fragile."

"The retail market, yes. The stock market, no. Wall Street bonuses will be hefty. So will prices on new luxury watches."

"What else do you see in the U.S. market?"

"I see Omegas everywhere."

"No kidding. Why the surge in Omega watches?"

"Who said anything about watches? I'm talking about boutiques. I see the number of Omega boutiques approaching double digits in 2011 and exploding into an Omega watch chain after that — 20, 30, 40 stores or more in a few years."

"Whassup with that?"

"It's the Omega comeback plan in the U.S. How did the Swatch Group revive the Swatch brand in the USA? Via Swatch stores! There are 60 of them in America now. Omega's headed the same way."

"What's a sleeper story for 2011 that I should keep an eye on?"

"Hairsprings."

"Why's that?"

"Because the do-it-yourself trend in movements is going to spread to hairsprings."

"How come?"

"Because the Swatch Group will get its wish in 2011. Switzerland's Competition Commission will rule that it is not legally obliged to sell complete movements or components to third parties. The new rules won't go into effect for a few years but the ruling alone will send firms scurrying to secure supplies, especially of hairsprings. New suppliers will spring up. And some firms will try to make their own. It's already happening. Rolex makes hairsprings for all its men's Rolex watches. A. Lange & Söhne and Montblanc make in-house hairsprings, too. And why do you think Richemont bought Roger Dubuis? It's the hairsprings, stupid."

"How about acquisitions? There are bargains out there but we haven't seen any action since '08 when Richemont bought Dubuis and LVMH nabbed Hublot."

"Watch Maurice Lacroix. And Girard-Perregaux. Gino Macaluso had it on the block for years but was asking too much for it. Gucci's parent company, PPR, wanted to buy it but backed out at the end of the negotiations and settled for a 23 percent share. Sadly, Gino is now gone. I see negotiations opening up again."

"Any other big moves in 2011?"

"I see Vartan Sirmarkes moving some Franck Muller Group watch production to Armenia."

"Wait a minute. That's not your prediction. That's been all over the Geneva newspapers."

"Where do you think they got it? You think you're the only scribbler that stops in here scrounging around for scoops?"

"OK, OK. How about a 'good news' story for 2011?"

"Baume & Mercier. It's my pick for Best Comeback. B&M lost money in 2009, but the new CEO, Alain Zimmermann, is from IWC, which has a great track record. He and his team have a good read on what's wrong and a plan to fix it."

"Any other hot tips?"

"Put money on it: Patriots over the Falcons by 10 in the Super Bowl." ○

**"THE DO-IT-YOURSELF  
TREND IN MOVEMENTS  
IS GOING TO SPREAD  
TO HAIRSPRINGS."**

MADAME VALJOUX



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